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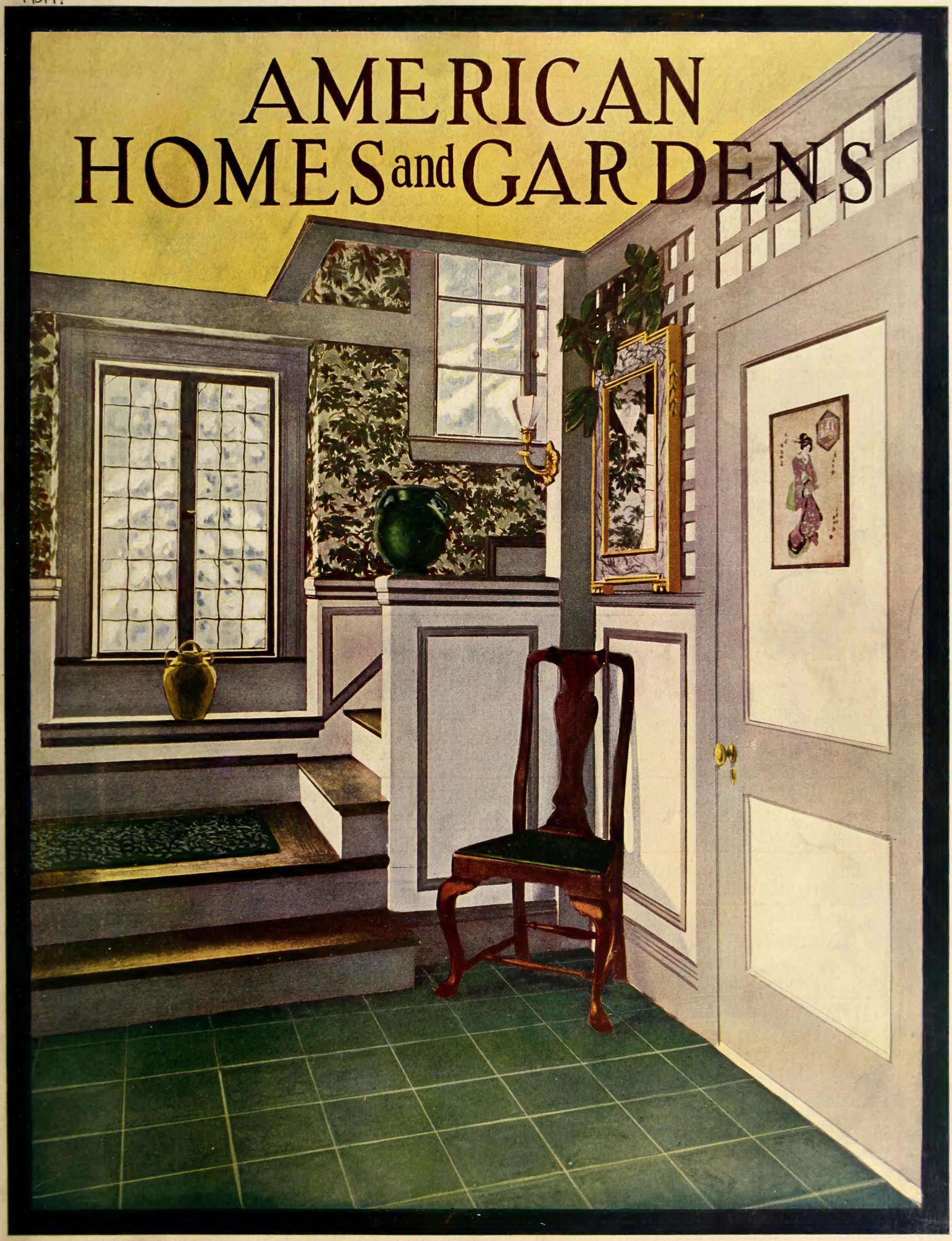

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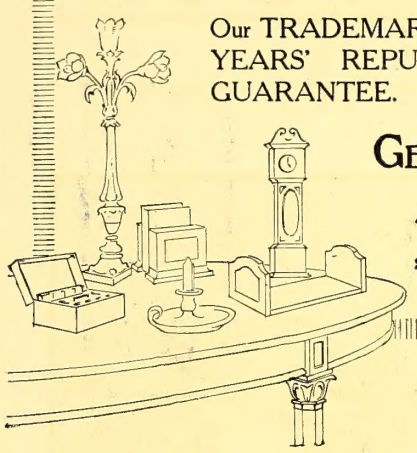

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WARM VS. COLD POULTRY HOUSES

By E. I. FARRINGTON

I ONCE visited an expensive poultry plant, where the houses were clapboarded without and plastered within, with big stoves to keep them warm. A few dozen hens were strolling lonesomely about yards that were planned to hold half a thousand. The plant was a flat failure simply because it was too comfortable—too luxurious. At first thought this seems a curious anomaly. The fact is, however, that the conditions which make for a satisfactory egg yield are not to be found in tight, heated houses. Such houses rob the hens of vitality and stamina. The flock becomes debilitated and unprofitable. Many a poultry enterprise has been wrecked through failure to appreciate this fact.

Some years since there came a prophet in the wilderness of poultrydom, preaching the gospel of fresh air. Repeated tests established the fact that hens thrived better in cold houses than in warm ones, provided the houses were free from dampness and drafts. Warm houses are more likely to be damp than cold ones. The moisture in the air collects on the sides of the building, so that the walls are actually covered with frost in the morning after a cold night.

Some time was required for practical poultrymen to realize that they had been on the wrong track, but gradually they began to leave windows and doors open all night, even in Winter, unless a strong wind was blowing. Then came the open-front houses, which are used by so many practical poultry-keepers the country over. These houses have no front walls, being entirely open to the air both summer and winter. The opening is covered with poultry netting to keep the hens in and intruders out, and conservative extremists, if such a term may be used, drop a muslin or burlap curtain at night, when the weather is very cold or when a storm is in progress, for the purpose of keeping out the wind and snow.

Those breeds which have small combs may be kept in such houses throughout the year, even in the coldest parts of the country. Hens with long combs, like those of the Leghorn and Minorca types, are likely to have the combs frosted. If, however, a curtain of muslin, tacked to a light frame, is so arranged that it may be dropped directly in front of the perches at night, when the temperature runs low, any variety of fowl may be kept in such a house, if the floor is covered deeply with a litter of leaves or straw and the birds made to scratch industriously for what they eat.

There is another type of fresh-air house, however, which is less radical and more popular than those having the front entirely open. This is the kind which the amateur is most likely to adopt when he is convinced that he has made a mistake in keeping his poultry under hothouse conditions. Instead of glass windows, muslin is used at the openings, being generally tacked to a frame, which may be opened on hinges or pushed to one side, for in practice these curtains are kept closed only at night in winter and when the weather is stormy. The muslin-covered openings should be

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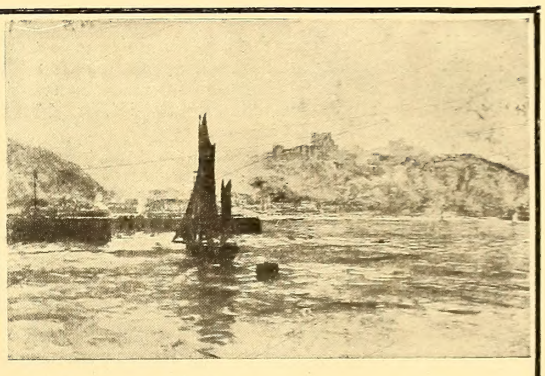

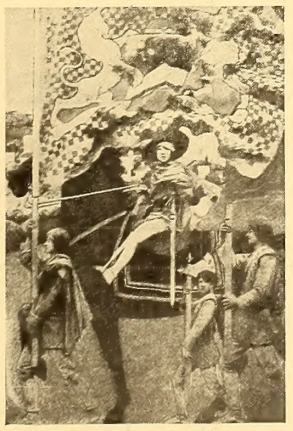

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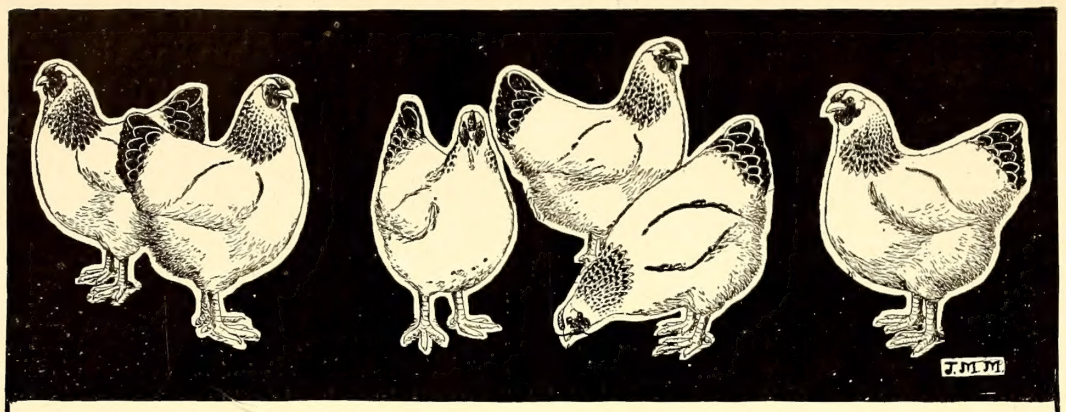

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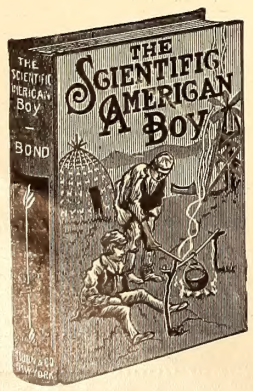

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large and preferably high enough so that the wind will not blow directly on the fowls when the curtains are open. Likewise, they should be designed to admit as much sun as possible, and the houses should always face the south.

A shed-roof house for a small flock may have the door placed in the middle of the front wall. This door may be a frame covered with muslin, and no windows will be needed. There should be a light inner door of poultry netting to confine the fowls when the muslin-covered door is open.

Cloth windows give perfect ventilation. They admit fresh air freely, but so slowly that no drafts are created. When they are used the house is free of odors and dampness. There is no dead air and no frost. Hard to believe as the assertion may be, it is yet true that the house with cloth windows is not more than a degree or two colder than one with glass windows; because of the better quality of air, it really feels warmer. Perhaps the idea was originally applied to poultry houses by some one who had observed that when dwellings are newly plastered the windows are covered with muslin until the plaster has dried. The plan has proved so satisfactory to poultrymen, that a number of dairymen have fitted muslin-covered frames to some of their stable windows, considering this to be an excellent solution of the much-discussed ventilation question.

Where large or continuous houses are used, it is a good plan to have one long, upright glass window in each pen, to admit sunlight when it is desirable to keep the muslin windows closed. While the cloth is translucent and allows air to pass through freely, it shuts out the direct rays of the sun. When there is one long window of glass, the sun is allowed to penetrate to the rear of the house with its purifying rays, and makes it possible for the birds to bask in it as soon a they are off the perches.

There is a considerable saving in first cost when muslin is used instead of glass in the poultry house, but the muslin will need to be replaced oftener. After a time, it will become too dirty to be used longer. The fact that muslin collects considerable dust and dirt is one argument used in favor of the absolutely open-front house. It is a good plan to brush off the curtains daily in winter. In summer, they may be removed entirely if desired.

Although fresh air is one of the secrets of poultry-keeping, the house must be tight everywhere except in front. Drafts must be carefully avoided and the roof must not leak. Fresh air does not imply a house with gaping cracks in the walls. And yet a single-boarded house is sufficient protection. At a recent test with three flocks of Leghorns, a house with double walls on two sides, one with double walls on all sides, and one with no double walls at all were experimented with. The egg yield in the coldest house was slightly less than that in each of the others, but not enough so to warrant the more expensive building. The conclusion arrived at was that a house for poultry should be dry, free from drafts, well-lighted and thoroughly ventilated. When those conditions have been secured, other factors must be taken into consideration when it comes to egg production.

In passing, one may suggest that there is no more need of the prevalent ugly architecture, or lack of architecture at all, in the building of the poultry house. Like other outbuildings, it should be and can be made attractive and in harmony with its surroundings, and that with very little or no added expense.

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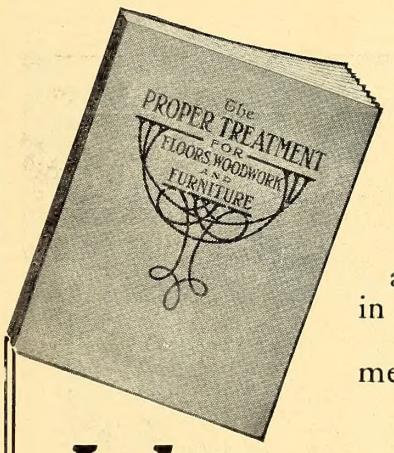

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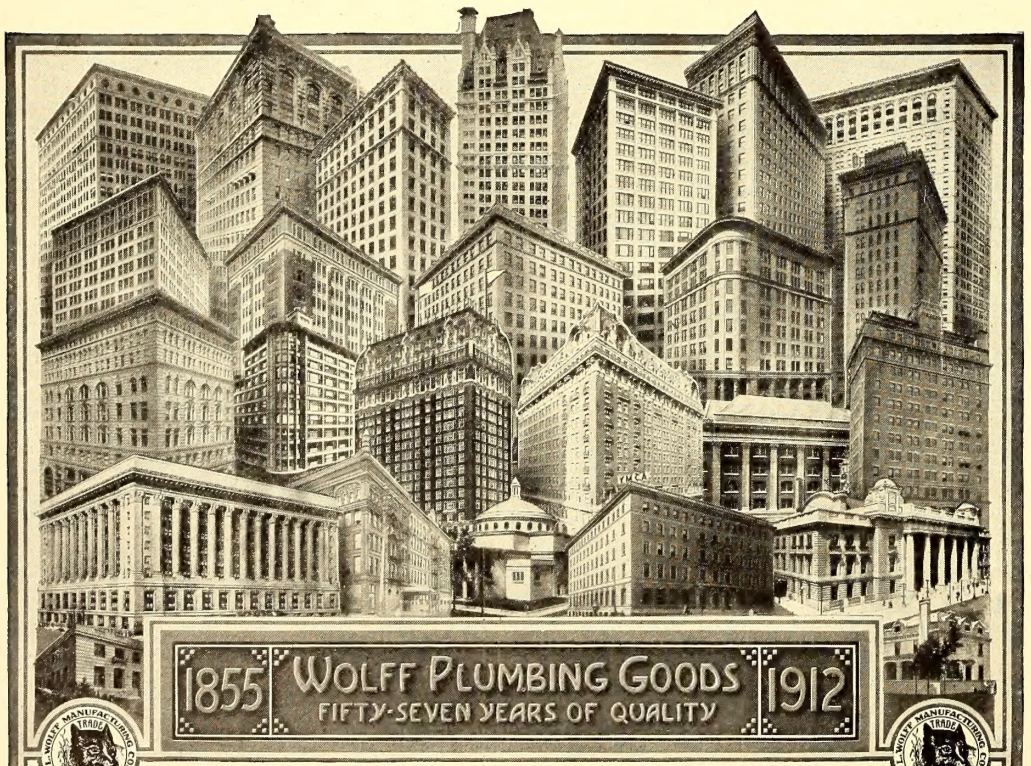

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THE SCOTTISH DEERHOUND

By T. C. TURNER

OF the aristocrats of the canine race there are none of them more worthy of this distinction than the Scottish Deerhound. Here we have one of the oldest known dogs, valued most highly and kept extensively in the early days. Yet for a period the breed dropped almost into obscurity. I am glad to say that of late years his rising popularity bids fair to make him as well known and as much sought after as he deserves. The canvases painted by Sir Edwin Landseer have done much to make him famous. They show him in every variety of attitude, for the great artist has many times depicted the Scottish Deerhound as sharing the sorrows as well as the pleasures of his master. He was frequently part of the falconry equipment of the old barons, and history records him as having often been the companion of kings and emperors. A particularly fine breed of Scottish Deerhounds existed in the kennels at Windsor Castle, and were most highly esteemed by the late Queen Victoria.

In the early days, deer-stalking was the sport of princes, and, as the name implies, the Deerhound was used for tracking and running down such game. But later, when deer became fewer in Scotland and England, it was only natural that the Deerhounds should become less popular than they had been in days of old. In general appearance the Deerhound is of the Greyhound type, but of stronger and heavier build. His coat is harsh and wiry, varying in length from one to three inches, and his best color is what might be called a blue-brindle. The average dog stands between twenty-eight and thirty inches high. In disposition he is gentle, affectionate, obedient and faithful, dignified in appearance, and a good guard. In fact, he is all that could be desired for a companion and pet, especially so where space will permit the keeping of such a dog, for with him, as with all dogs of his size, they should only be kept where free access to at least a large lawn can be had. Their long limbs preclude them from being kept where the smaller breeds, such as toys or even terriers, will do well. The Deerhound should have a long body and muscular shoulders, a larger and coarser head than the Greyhound, with larger and more powerful jaws, made more striking by the coarse hair covering them. There should be no fullness of jaw below the eyes. The nose should be black, the ears small, carried a trifle high and coated with a fine short soft hair. The eyes hazel or blue, although a recent English winner has unusual eyes that almost match the color of the coat. The neck should be long, but of good strength. The chest deep and a little wider than that of the Greyhound. The loins powerful, the legs straight and bony. The feet longer or less cat-like than those of the Greyhound, and strong in bone, to enable him to stand rough travel. The color varies—fawns, grizzly and brindle, but the darker shades are preferable. There should be no sign of white upon the body. However, a small white star on the chest is not a defect. The Deerhound should also possess the faculty of tracking by scent, as well as by sight.

There is, perhaps, no breed of dog more in keeping with the landscape of the wooded estate than the Deerhound. He seems to belong to oak forests and just the sort of animal one would choose for a home in the woodland. He is, too, an excellent type to select in the choice of a single dog for the small place, that is to say for the country home which contains enough area to give him a spot to romp in but which, perhaps, is not of sufficient extent to make the keeping of many dogs advisable or desirable.

TREATING INTERIOR WOODWORK

By GEORGE E. WALSH

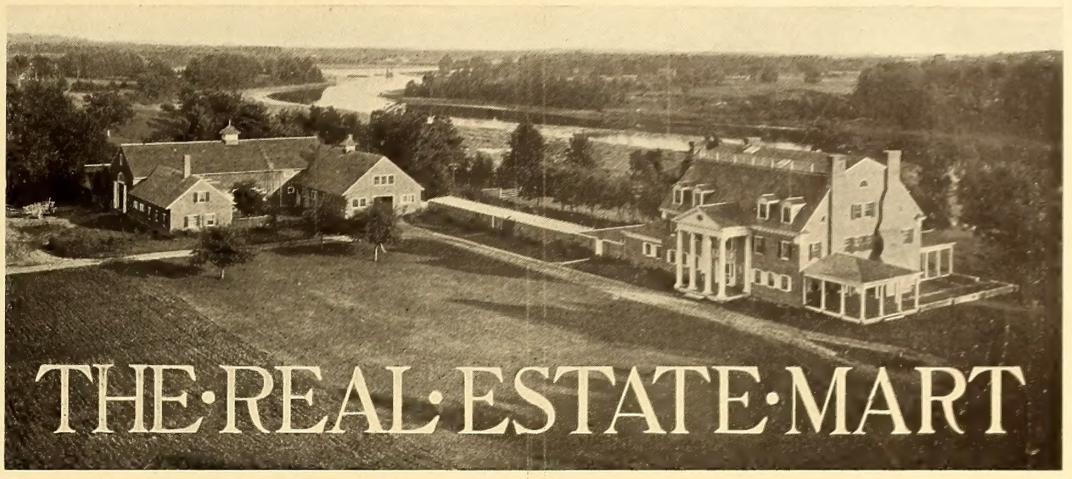
THE necessity of using cheaper woods to-day in place of hard varieties for the interior finish of our houses has developed the art of staining and varnishing so that beautiful effects in grain can be obtained with satisfying results. In the hands of the novice, these woods can be made to yield a durable and artistic finish that was quite beyond our forefathers. In order to obtain the best effects, however, the woods must be classified and be treated differently. Not all soft woods will take stains alike, or at least not the common kinds of stains.

For instance, mahogany stain should not be used on such woods as oak, ash or chestnut. These woods have too pronounced a grain and characteristics to give good results with mahogany stain. But birch, cherry, pine or whitewood take the rich red-brown and lighter shades of mahogany with gratifying results. The surface can be polished to a semigloss finish or the dull natural finish, so that a good imitation of the mahogany wood is obtained. In the semigloss finish an effect is obtained that resembles the waxed and hand-polished old mahogany of old days, and it can be wiped off with a damp cloth without injuring the gloss. Mahogany stain finish can be successfully used with hazel, spruce, gumwood, Washington fir and California redwood. Hazel wood, which is quite inexpensive in some localities, can be stained a beautiful gray or moss-green color, and with a rich brown stain it greatly resembles Circassian walnut.

Cypress is a common wood now for interior finish, but, like ash, chestnut and bass, it lends itself beautifully to weathered effects. Time and exposure tend to produce a mild change in color effects, and, taking advantage of this, a little stain or plain varnish treatment will greatly improve its appearance. By using light shades of brown on such woods, varying tints which help to intensify the grain will harmonize beautifully. Cypress wood contains a great quantity of resin and methylene, and some good liquid filler is needed over the coat of stain to seal the grain. Otherwise the resin will exude at times and thus spoil the finish. The stain is applied first so that it will dye the wood, and then the filler seals the grain and prepares a smooth surface for the finishing coats of stain or varnish. The use of fillers is sometimes of great value in treating woods. Some of the very open-grain woods are much better for a coat of filler first, and again the stain is used first to secure a dull or natural finish.

Ash is a wood susceptible of many different kinds of artistic treatment. A beautiful antique appearance with it can be produced by applying a dull brown stain and filling the grain with copper-green pigments. In imitation of old wood, weathered and saturated with salt water, ash is sometimes treated with a black stain and a gray filler. A coat of varnish rubbed down to a dull finish follows.

Maple is a wood that takes the soft green and silver-gray stains to perfection. This wood is susceptible to a high polish, and gives better effects in this way than with a dull finish. Bass or whitewood is used freely for interior home work of all kinds, and it shows well under mahogany or any of the dark stains; but it is a wood that shrinks and checks considerably in the drying, and unless well-seasoned timber is used the results will be very disappointing. Beechwood is also a poor one



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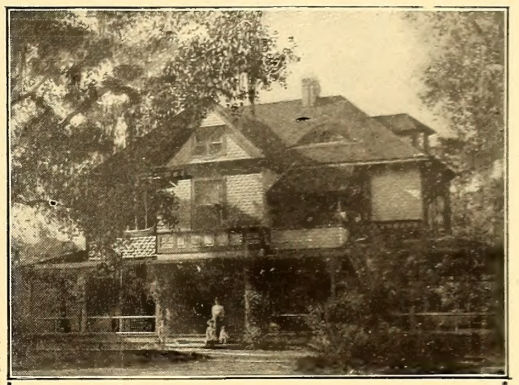

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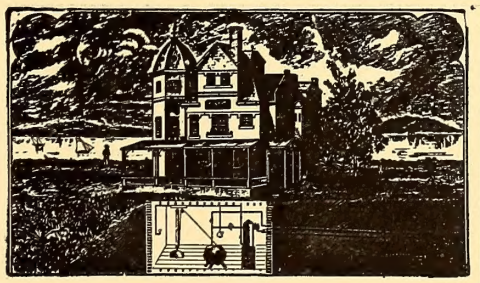

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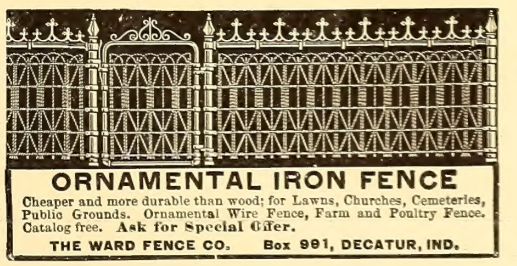

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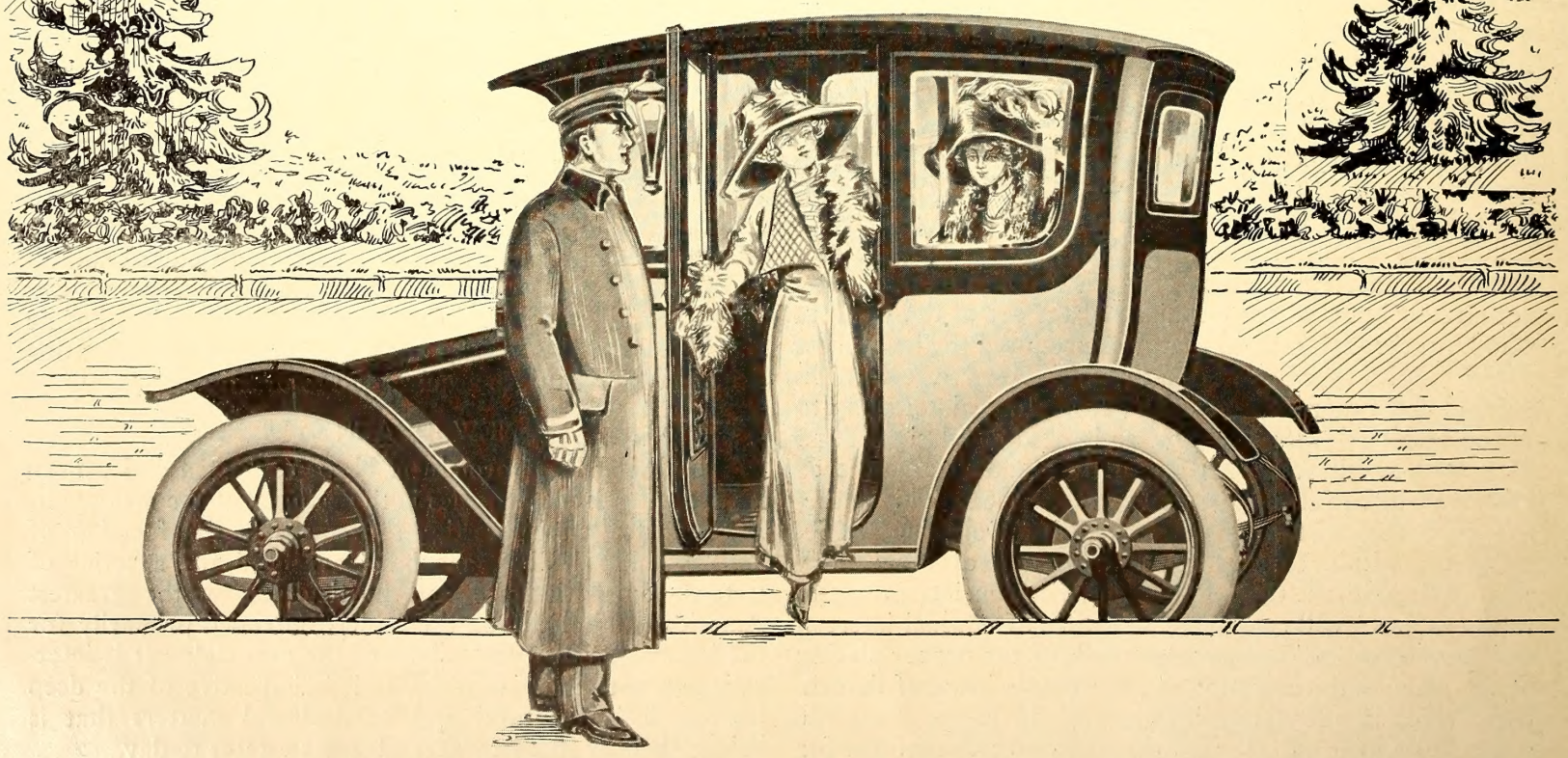

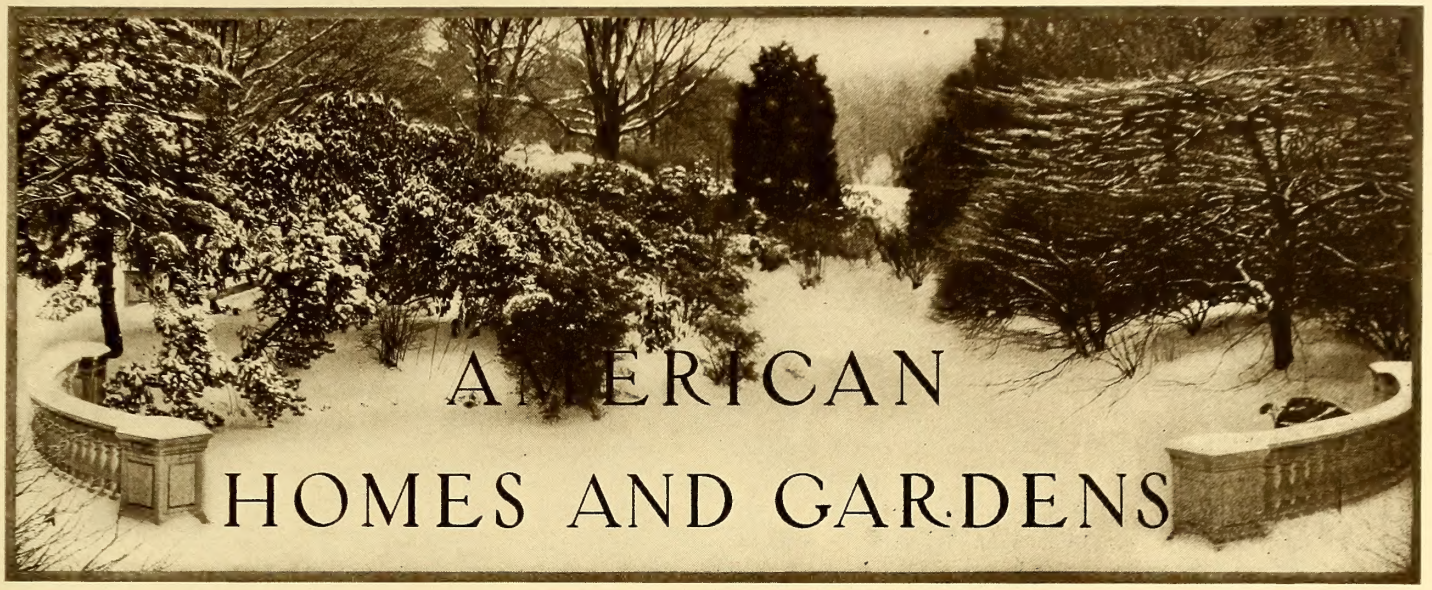

AMERICAN HOMES AND GARDENS

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CHARLES ALLEN MUNN
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MUNN & CO., Inc.
Publishers
361 Broadway, New York

FREDERICK CONVERSE BEACH
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Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

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Photograph by T. C. Turner

The portico of the carriage entrance side of the house of Carleton Macy, Esq., at Hewlett, Long Island, New York

AMERICAN HOMES AND GARDENS

Volume IX — January, 1912 — Number 1

A Long Island Country House

The Home of Carleton Macy, Esq., Hewlett, New York

By Robert Leonard Ames

Photographs by T. C. Turner

THERE are few architectural styles better suited to eastern landscape requirements than the Italian, or adaptations of it, for the country house of goodly proportions. Whether upon a hillside, as with the villas of Campania or of Tuscany, or in the plains, as with the villas of Lombardy, there is always an opportunity to make the Italian style effective in any setting. In fact, is has often been said that domestic Italian architecture, a heritage from Roman times, belongs distinctly to country living, and that despite the buildings of Italian cities being crowded together, that this is one of the reasons Italian towns always retain the aspect of much that is rural and even rustic, whether it be Rome, Naples, Florence or Milan.

The country estate of Carleton Macy, Esq., at Hewlett, Long Island, New York, is adorned with an excellent example of the adaptation of the Italian style to the requirements of American living, as one may discover by a study of the house designed for Mr. Macy by Messrs. Albro and Lindeberg, architects, New York. The countryside of the south shore of Long Island is, for the main part, flat, well-wooded here and there, and outlined by bays, lagoons and other inlets that provide easy access to the water and afford

This view shows the façade fronting the uncompleted lawn, and it presents a remarkably fine example of unusually successful fenestration

The carriage entrance side of the house of Carleton Macy, Esq., Hewlett, Long Island, New York. The grounds as they are seen in the late Fall

lovely views of the sea. Hewlett is one of the very attractive spots not far from the Great South Bay, and some of the loveliest homes in the country are to be found there.

The house we are describing is set within ample grounds, and although the illustrations that accompany this article have been taken in the late Fall in order to disclose the architectural detail, one can easily supply by imagination the effect that the trees and shrubbery and vines in leaf add much to the charm of the place. Nevertheless, where we have long stretches of Winter, bereft of blossom and verdure, it is a happy thought to take account of the effect the house is to have these gray days, as have Messrs. Albro and Lindeberg, who have planned the house along lines designed to make one feel that it is as attractive in mid-Winter as it may be in mid-Summer. Indeed, this is an example that might well be followed, for the instances are not rare of the country-house that presents a delightful aspect in Summer, but which is forbidding in its appearance of an almost feudal barrenness in Winter-time. This house is planned, as a place of its very dignified character should be, with two fronts—one facing the roadway and having the carriage entrance, and the garden side fronting the great lawn. The stucco walls are completely in harmony with the surroundings, which are, as yet, not fully planted, although the work of lawn and garden-making will be rapidly advanced this coming season to bring the house into even a more beautiful setting than that afforded by the natural state of the site.

The plastered soffits and two-story circular bay form particular features of this interesting Long Island house

The north point, containing the main or carriage entrance to the house, is charmingly frank and simple in its lines. The entrance portico itself is particularly beautiful, and suggests the portico of certain old houses in Charleston and in Savannah, by reason of its Doric columns and the arrangement of the glass over-door panels. The portico floor is of brick laid in wide white joints, and on each side of the three steps lifting one to it is an old Italian terra-cotta oil jar. The front which faces the lawn is planned with great care and presents an appearance of unusual dignity. The windows are so designed as to

The beautiful terrace-roofed piazza leading from the den and from the living-room at the west end of the house, is one of sterling dignity

afford a flood of light to the interior, and although French windows are here combined with others they are all kept harmonious in their proportions and the same in design. The windows of the upper floor form an unbroken line, one of the best examples of successful fenestration in a house of this sort which the writer has seen. The loggia and pergola extend the apparent width of the house, and the roof, with its careful restraint of line, completes the design of this distinctly individual and beautiful country-house.

The area covered by the house is so ample that all service quarters are arranged upon the two main floors. This makes unnecessary the use of the garret space for service quarters, and this has enabled the architects to design the broad low-pitched roof of unbroken horizontal lines seen from the south front of the house. The roof of the north front of the house is less formal in its plan. The chimneys are well designed and suggest those the traveler in Umbria constantly sees throughout the countryside. They are well placed and give emphasis to the pleasing symmetry of the roof, whose amply broad overhang affords deep soffits, up to which the shuttered windows of the second floor extend.

Detail of the pillars of the spacious piazza at the north end of the house

From the portico on the north, one enters the house through a vestibule, coming into a hall. Directly in front, doorways lead to the living-room and to the dining-room, with a doorway to the den directly on the right, and the stairway and entrance to the service-wing upon the left. A good-sized lavatory occupies the space under the stairway, and is reached by a couple of descending steps. The entire plan of the house shows the careful thought given to the matter of utilizing every square foot of space by the architects, who have shown good taste and ingenuity in their task, for, after all, one is not confused by innumerable turnings and twistings and unexpected doors and passageways. The entire plan is what one might term straightforwardly obvious and harmoniously simple. The large living-room, occupying the southeast corner of the house, is thoroughly homelike, as a living-room ought to be, and, like the

Dining-room, showing screened service entrance and entrance to the breakfast-room

Dining-room, showing entrance to the living-room and closed doorway to the hall

spacious den on the northwest corner, connected with it by a door, it opens upon a loggia, whose floor is flagged with quarries and whose terrace-roof is supported by Doric columns, forming an immense outdoor room for Summer use, and yet so designed that it is an architectural adornment to the house at any time, and never appears to have been merely dictated by utility. Glass doors give access to den, living-room and dining-room, all in excellent proportion. There are generous fireplaces in the den, in the dining-room and in the breakfast-room, which opens out of the last and occupies the southeast corner of the house, the windows of which flood it with morning sunlight.

The dining-room is one of the finest rooms in the house, of goodly proportions and simple dignity and in exquisite taste. The white paneled walls are especially noteworthy, and the fine pieces of old furniture resting upon the beautiful rug lend a warmth to the scheme of the room. This room is illuminated by side lights and candles, and these lights have been carefully placed with reference to securing just the proper illumination a room of this sort requires. Moreover, this scheme of lighting apparently tends to increase the size of the room. The service entrance to the dining-room has been skillfully worked out, and while giving ready access for prompt service, it occupies an unobtrusive corner of the room and is concealed by a great three-paneled screen. Directly in front of this service door is the long butler's pantry, the door to the right leading past the service-stairs into a large kitchen. Beyond this is the laundry, while the northeast corner of the service-wing is occupied by the service-porch. The cellar runs the length of the house and is one of its most carefully planned features, being unusually well lighted and well ventilated. One should note the clever treatment of the service extension, which has its south wall covered with trellis-work, giving it a pergola-arbor effect that balances the loggia at the west end of the house.

Few houses of any size have embodied so many excellent features as has this one in the plan of its second story, where, without any sacrifice to design, the architects have succeeded in carrying out a plan that ensures comfort and every convenience both in the family and in the service sections of this story. The unusual amount of space at command enabled the architects to provide for all the sleeping-rooms to be placed on one floor. Here one finds five large bedrooms for the family, all with adjacent baths, and three bedrooms in the service-wing. The largest of the sleeping-rooms has also a dressing-room forming its suite, and a great open fireplace, while its south wall is formed by the semicircle of the second-story bay, with five windows. This room, in common with all the rooms on the floor, is furnished in excellent taste, and the cheeriness of the sleeping-rooms lends much charm to the house. From all these rooms one commands beautiful views of the surroundings.

It is fortunate that in the work of the architects of Mr. Macy's house they have had the satisfaction of seeing its beauty further enhanced by the good taste that has been exercised throughout in the selection and arrangement of its furnishings, and that the result has been not only a beautiful house upon beautiful lines, but one whose interior carries out the promise of its exterior. Here the dignity and charm of a country home is complete and satisfying, with a beauty which will grow with each passing year.

The living-room, showing entrance to the hall

The large sleeping-room, showing circular bay

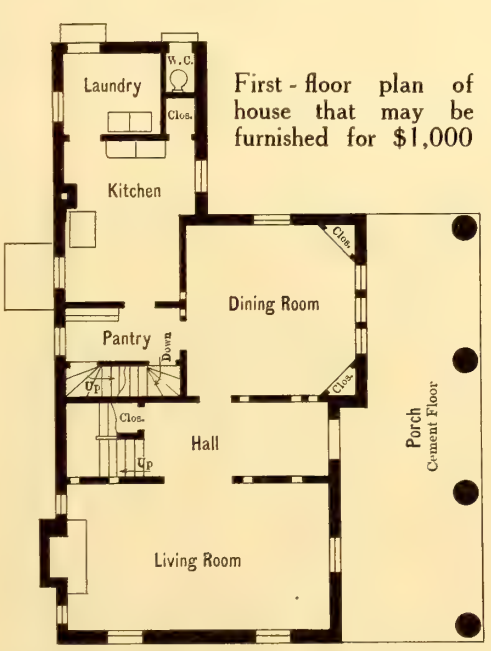
This type of house, presenting so delightfully homelike and artistic an exterior, leads one to expect to find it equally attractive within doors

Furnishing a House for $1,000

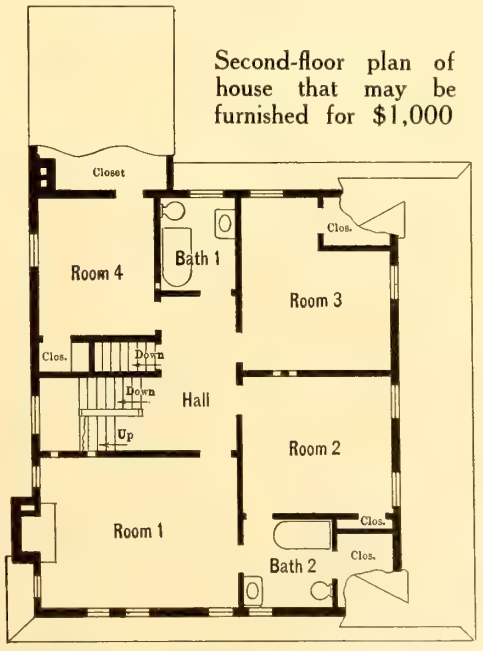
By Esther Singleton

Photographs by T. C. Turner and others

OF course, it is easy to furnish a six- or eight-room house comfortably for $1,000, if one disregards the matter of careful selection for thoroughly harmonious results, but to make such a house artistic and individual with this appropriation is a more difficult problem, and one requiring careful thought and planning. The reader will find illustrated above, the exterior of a charming little house in the suburbs, which is so delightful in this aspect that one is led to expect an equally attractive interior. How to go about to furnish such a house to make it so, and to keep well within the thousand-dollar limit, is the problem here discussed.



First-floor plan of house that may be furnished for $1,000



Second-floor plan of house that may be furnished for $1,000

In the first place, it is probable that a house of this sort will have floors of polished and waxed hardwood already laid, and that all the painting has been done, as these are usually builder's, and not furnishing, items, being included in the contractor's specifications. Furthermore, let us assume that the windows have been supplied with roller shades and with awnings, and that our furnishing estimate is to exclude rugs, wall-paper, and hearth furnishings, as well as the laundry fittings. These ought all to be considered by themselves, being such variable quantities, and the reader will find many valuable hints on the choice of rugs and their prices in the December, 1911, issue of AMERICAN HOMES AND GARDENS.

Let us assume that the chosen house is finished in woodwork painted white. Nothing is of more importance to good furnishing than the appearance of the windows, both within and without. Fresh, crisp muslin or lace curtains proclaim good housekeeping. There is no excuse for not having every window properly adorned, for there are many inexpensive and attractive materials of good quality always in the market. In any city, curtains can, of course, be purchased ready-made.

Fancy muslin curtains, plain or ruffled, in white or in colors, come to between one dollar and a dollar and a half a pair; white Swiss, printed Swiss, organdie and scrim can be purchased for as little as twelve and a half cents a yard, and fancy netting for long windows, or for casements, at from one dollar and a half to two dollars a pair.

But first of all let us take a preliminary survey at the division in the distribution of the funds we have set aside to provide furnishings. The following estimate will show us at a glance the totals requisite for this purpose:

Figured cretonnes. The upper pattern is for the Rose Room, and the lower is suggested for the Peacock Room

FIRST FLOOR: Living-room, $280.50; dining-room, $250.00; kitchen, $25.00; hall, $15.00. SECOND FLOOR: Bedroom No. 1, $125.00; bedroom No. 2, $144.50; bedroom No. 3, $52.00; hall, $4.00. TOP FLOOR: Bedroom No. 4, $39.00. Miscellaneous (not itemized), $65.00. *Total,* $1,000.00. The unitemized miscellaneous amount can be applied, of course, to bathroom fittings, etc., items not included in the whole estimate.

Let us first take the ground floor into consideration. The living-room has, as the reader will see by the plan, five windows—one looking out upon the veranda, two at the back, and one on either side of the fireplace. Although we use the term somewhat freely in covering the intended furnishings for this room, we shall call it the Jacobean Room, for, although it cannot be strictly that, it will be more nearly Jacobean in effect than anything else, by reason of the draperies and upholsteries. A beautiful and effective pattern of fabric shows large birds amidst leaves and flowers, the colors being beautiful subdued greens and blues, and this we shall use to upholster two Queen Anne chairs and a comfortable stuffed sofa of the same design, and also for the curtains, that should hang on rings in straight widths and folds. The pattern is so handsome that these need neither festoons nor borders. Although they are of block print and of cotton, and would be out of place in a city drawing-room, in a simple country or suburban living-room they will prove very effective. These, with the muslin under-curtains for the five windows, will come to around sixty dollars. We have two upholstered high-back armchairs, two cane-seated and cane-backed armchairs with oak frames, and a two-back or a three-back oak settee with cane seat and cane panels in the back, and one upholstered sofa. The floor will look best with a covering of gray or with an Oriental rug. The walls should be papered with a plain gray English cartridge paper, running up to the molding below the tinted coved ceiling. The library table, with its lamp and books, and the logs brightly burning on brass andirons, will give the proper cozy and hospitable welcome to the man of the house after his long day in the city. Vases, pots of flowers, and bric-a-brac can be arranged on the top shelf. Silk curtains of green or blue, matching either of the colors in the window curtains, and moving easily on rings, will protect the books and add a nice touch of color. For the major fitting of this living-room, let us make an allowance divided as follows:

Another attractive patterned cretonne

LIVING-ROOM: Oak settee, $48.00; 2 oak armchairs, $46.00; 2 Queen Anne armchairs, upholstered, $50.00; sofa, $50.00; library table, $24.00; muslin curtains, $7.50; Jacobean print window curtains, $55.00. *Total,* $280.50.

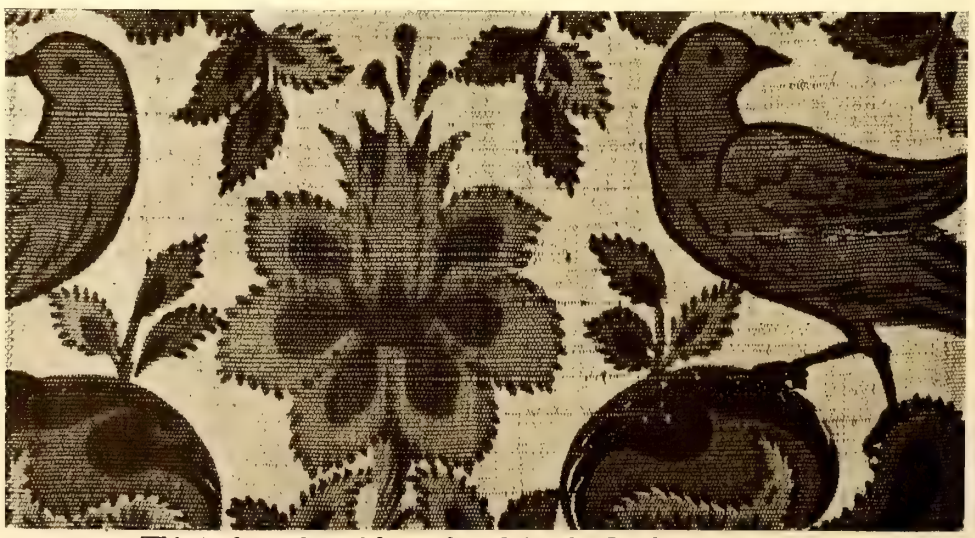
We will assume that the dining-room has rough walls tinted yellow. The table and chairs and buffet chosen are of the Sheraton style, simple and elegant in lines. The curtains for this room may be cream or écru fishnet fabric, and a good floor rug, preferably an Oriental, will make a feature distinctly pleasing. The broad window-shelves have made possible, indoor plants that will lend a note both of color and of homelikeness. We will assume that the major furnishings for the dining-room are to cost as follows:

DINING-ROOM: Mahogany dining table (48-inch), $50.00; mahogany buffet, $85.00; 6 Sheraton chairs, at $9.75 each, $58.50; 2 Sheraton armchairs, at $13.50 each, $27.00; serving table, $25.00; window curtains, $4.50. *Total,* $250.00.

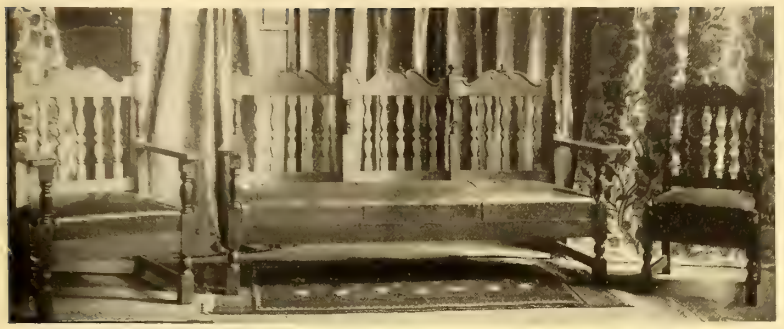
The kitchen can be adequately furnished for $25.00, including all utensils. Many of the big shops supply itemized lists. It is well to remember that a floor covering of blue-and-white oilcloth makes a more cheerful and attractive kitchen than one with a floor covering of brown or mixed colors, and blue ware should also be selected. Of course, the range will be in the house already, coming under the other building estimates.

The hall should have a small rug, of course, and curtains at the front door of lace, of net, or of silk, of red, old rose, sage green or yellow. A china jar umbrella-stand can be purchased for very little, and a box settle, with a seat that lifts up, is very practical in such a place. In a shadowy spot behind the stairs a row of hooks will be found to be very useful.

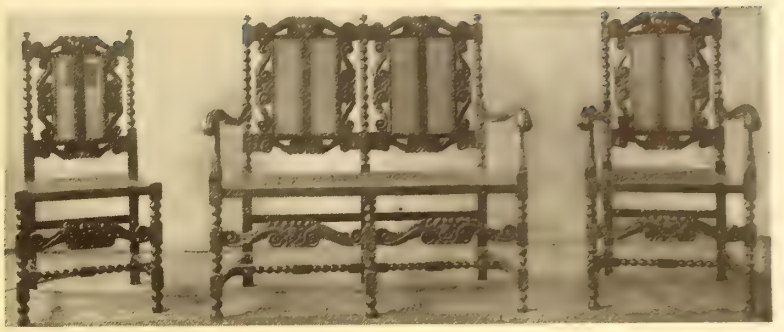
The upstairs hall, being very small, will give us little trouble.



This is the striking fabric selected for the Jacobean living-room



Settee, armchair and chair of this sort will cost under $80



Two-back settee and chairs of this sort will cost about $100

A rag rug, a fresh muslin curtain at the window and a small wicker table for the emergency candlesticks, that should always stand upon it with a matchsafe, are all that we really need. We may estimate these furnishings as follows:

LOWER HALL: Settee, $10.00; door curtains, $2.50; umbrella jar, $2.50. *Total,* $15.50. UPPER HALL: Curtain at window, $1.00; small table (wicker), $3.00. *Total,* $4.00.

Now for the bedrooms. Room No. 1, over the living-room, also contains five windows and a fireplace. This room could be handsomely fitted up with mahogany and old rose. It would be a pleasant task to search for "Colonial" furniture and discover a high-post bedstead in some out-of-the-way place at one time; a tall, high case of drawers with brass handles and key-plates in another; a few Chippendale ladder-backed chairs on another occasion, and to bring home a tip-and-turn tea-table for a mere song; but, if we have not time to wait for opportunity, a very good suite of furniture can be had for a small price, in dull mahogany or quartered oak polished. We will allow for this room the following amounts:

BEDROOM NO. 1 — OLD-ROSE ROOM: Bed, $35.00; chiffonier, $36.00; dressing table, $22.00; muslin curtains, $5.00; old-rose lambrequin, $15.00; three wicker chairs, $9.00; small wicker table, $3.00. *Total,* $125.00.

A light table desk and chair of willow furniture is appropriate as part of the furnishings for a dainty bedroom

In place of the dressing table one might substitute a wicker desk and table. The desk would cost $14.00 and the chair to match $7.50. That would leave a credit of 50 cents to add to the miscellaneous total. For the wall-paper of this room, a warm fawn color brightened with a gold frieze would be appropriate, or a frieze of pink roses, or any other pink flower.

Room No. 2 is the "Peacock Room." The wall-paper is cream with frieze of peacocks, and the floor is covered with a square rug of plain peacock blue. The furniture is white enamel and wicker painted white, and the chair-cushions and window draperies are of chintz of quaint design. It is white, and the birds and flowers blue, red and green, with a little touch here and there of yellow.

The bedstead is white enamel, with cane panels in the headboard and footboard; the dressing table is also white enamel, with a glass slab; we have one wicker armchair, also painted white, and a big wing chair upholstered with the peacock cretonne. A small wicker table stands by the bedside and utility boxes in the two windows. The estimate for this rooms is as follows:

ROOM NO. 2 — PEACOCK ROOM: Bedstead, $40.00; dressing table, $55.00; wing chair with peacock cushions, $25.00; one wicker armchair, peacock cushions, $6.00; small wicker table, $3.00; two utility boxes covered with matting, serving as window-seats, $1.25 each, $2.50; two pairs muslin half-sash curtains, $1.00 per pair, $2.00; curtains of peacock print, 98c. a yard, $12.00. *Total,* $144.50.

The material selected for Room No. 3 is equally attractive. The roses are not pink, as might be expected, but are violet. This material is the same price as the "Peacock" drapery, and can be washed. The "Violet Rose" Room contains two windows, and these can be draped with pretty muslin curtains and above them a deep ruffle of the cretonne. The curtains should only come to the top of the sill, as the windows are furnished with utility boxes. The one wicker armchair is painted pale violet to match the cretonne, and is supplied with cretonne cushions, and a small rush-bottomed rocking chair is made comfortable with a cushion of catawba-colored silk. The wicker table at the side of the bed is also painted violet. A bedstead and a chiffonier complete the furniture of this room, which is as follows:

Sheraton dining chairs

Sheraton buffet

Table on Sheraton lines

An inexpensive but tastefully furnished bedroom

Bed, $16.00; chiffonier, $15.00; one wicker chair with cretonne cushions, $6.00; one small rocking-chair with cushions of catawba silk, $4.00; one wicker table, $3.00; two muslin window curtains, $2.00; cretonne cornice ruffle for windows, $2.00; two utility window-box seats, $2.00 each, $4.00. *Total,* $52.00.

Room No. 4, a little room with one window, we shall arrange for a child, selecting a cheerful design in cretonne, such as apple blossoms, daisies or butterflies, and calling it by the name of the "Apple Blossom Room," or the "Daisy Room," or the "Butterfly Room."

The cretonne will be used to drape the window and for cushions for the chairs, which consist of a small armchair and a small rocking chair. A little table or child's desk is a necessity. There should be a chiffonier—a small one—and a pretty bed, both of white enamel. A white enamel bed, with cane or picture panel, is listed at $12.00, and a very attractive way to fill the panel would be by placing in it two or three of Kate Greenaway's pictures. It would be a never-ceasing pleasure to the child if Kate Greenaway's books, "Under the Window," "Marigold Garden," "The Pied Piper," etc., were purchased and the pictures cut out and used as a frieze for this room. The remainder of the pictures could be framed and hung upon the wall.

Room no. 4—child's room: Child's bed, white enamel, $12.00; chiffonier, $10.00; one small rocking chair, $2.00; one small armchair, cushioned like window, $2.00; one utility box window-seat, $1.50; one little table, $2.00; drapery for window, $2.00; three Kate Greenaway books, $1.50

Various types of chairs, excellent in design and moderate in cost

each, $4.50, and framing pictures taken from them, $3.00. *Total,* $39.00. One must remember that there are few persons who go about furnishing a house completely to the minutest detail, from cellar to garret, at one time, and this estimate neither pretends nor is expected to be one inclusive of everything, from lares and penates, to china upon the table. However, such an estimate as has here been presented ought to prove useful to the homemaker who has a problem of furnishing in mind and desires some basis on which to work, either toward evolving a plan for a more elaborate expenditure or for economizing by bringing this estimate lower where necessity requires it, and careful shopping, guided by good taste, makes it possible to do so. It is hoped that the various hints contained in this article will prove of service to the American homemaker of moderate means, and also be a reliable guide to the inexperienced.

Queen Anne sofa should be especially upholstered in selected fabrics

Queen Anne armchair and side chair, to be upholstered like the sofa

The Colonial portico possesses a classical dignity, but does not take away from the exterior the homelike appearance that is its great charm

A House That Tells Its Story

The Home of Robert Cade Wilson, Esq., Summit, New Jersey

By Henry Morton Blake
Photographs by T. C. Turner

THERE are few houses of its size more attractively located upon the area of ground at its disposal than the home of Robert Cade Wilson, Esq., at Summit, New Jersey, designed by W. L. Stoddart, architect, New York, which stands back from the roadway over four hundred feet, partially concealed from the street view by a screen of well-placed shrubbery, leaving a great expanse of lawn that leads invitingly to the classic portico that gives the house its definite Colonial note, further carried out by the shingled walls, which are set off by the white Doric columns and entrance-face of the portico, the white corner and window trims, and the dormer windows. A roadway to the right of the well-kept lawn, which lawn reminds one of an English bowling-green, leads to the house, whose foundations are slightly above the soil level and screened by carefully chosen shrubs, planted with reference to their not obscuring the outlook from any of the windows of the lower story.

The spacious living-room, with beamed ceiling and abundant light

The exterior of the house suggests the hospitable warmth one finds in Virginian domestic architecture, and in houses of other southern states—a happy intimation of repose about it that is sometimes lacking even in some of the finest and most perfectly designed Colonial houses modeled after types of the period of the Revolutionary War. Attractive as one of these last named may be, there is too often about the old Colonial house the suggestion of militant historic connection, that leads one to wonder, first, if some patriot of 1776 ever hid from the Loyalists in its cellar, and then to be sure, from its newness, no patriot ever did. So it is that the house along Colonial lines that does not attempt to suggest a history to which it is not entitled, but which, on the other hand, has a distinction conferred upon its modern inception in the matter of its

The one-story sunroom, with its terrace-roof, forms a wing to the house

The interior of the sunroom is both homelike and thoroughly attractive

delightfully inviting homelike qualities is, after all, in the writer's opinion, the sort of a house that best expresses the intent, or what should be the intent, of our domestic architecture to-day. One enters the house here pictured, through a vestibule, out of which a spacious hall opens, running through to the rear entrance, with lavatory and closet-room under the broad stairway. To the right of the hall a broad square arch leads into the living-room, French windows at the end of which, on either side of the fireplace, give access to a sunroom, one of the most attractive features of the house. This is informally furnished in willow furniture and pieces upon Mission lines, and the ferns and other foliage plants placed about further lend color and cheeriness to this enclosure, which is flooded with sunshine on bright days, but in which, by reason of its generous proportions, one is never compelled to sit in the glare of the sun's direct rays.

The beamed ceiling of the living-room is repeated in effect in the large and handsomely furnished dining-room, directly across the hall. As one enters this room the fireplace is directly ahead, the doorway to the right leading to the cozy "den" and the doorway to the left to the attractive little breakfast-room, beyond which is the butler's pantry, leading from the spacious, well-planned kitchen. The service-wing is ideal in its arrangement, and presents features that cannot fail to interest home-planners, to whom the problem of arranging the service portion of the house successfully has presented itself. It is not often that so generous a section of the dwelling is given over to the needs of those to whom is entrusted the task of its routine, and the present plan, both in the lower and the upper stories, will commend itself to everyone taking into account the requirements of the service quarters of the well-ordered household. Note the unobstructed light derived from the large windows in the kitchen, and that these, having the same cheerful outlook that one has from the dining-room and the living-room, are yet away from the line of the windows of this portion of the house by reason of the recession of the wall. The service-porch is spacious and quite apart from the other porches of the house, and out of range of the line of vision from them. The laundry and the storeroom are especially well worked out, and the back stairway has its own hall, well aside from the rest of the house, but leading, by three steps, to the rear entrance, opening upon a cement platform. All the bed-

The spacious, cheery dining-room opens from the hall upon the left

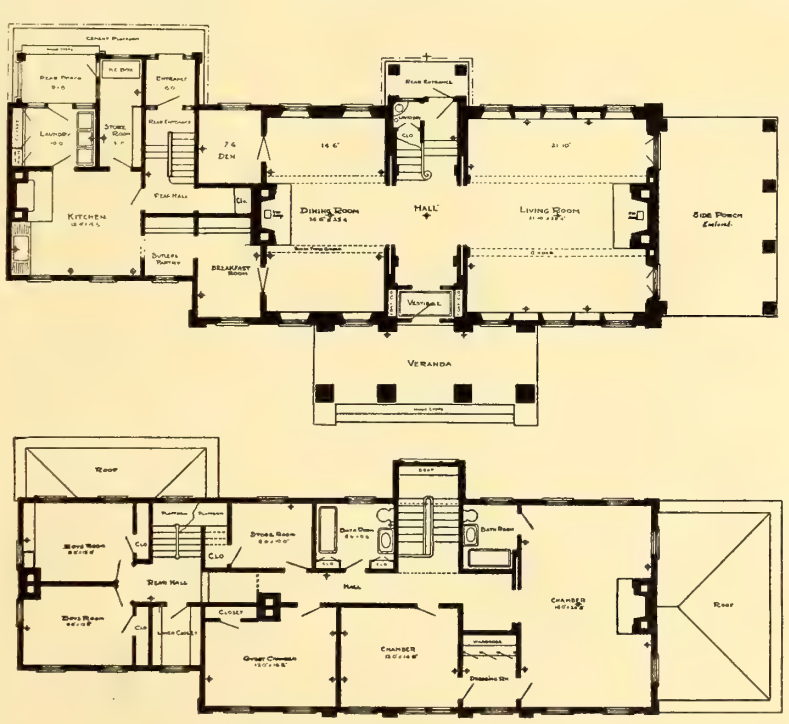
The bedrooms are all well planned, well lighted and well ventilated

The broad expanse of the beautiful lawn in front of the house suggests an English bowling-green

rooms of the second story are large, well ventilated, and well lighted. The largest of these chambers, directly over the living-room, has a fine Colonial fireplace with a broad hearth and wide mantel-shelf, above which is a white-framed three-section mirror, while the furniture of the room is patterned after antique pieces. Long windows on either side of the fireplace look out over the terraced roof of the one-story sun-room below, its balustrade being brushed by the foliage of the nearby trees. This room has a bathroom and a dressing-room on either side of the entrance door, completing the suite. Four other chambers, another bathroom, and a storeroom complete the arrangement of this floor, above which is the smaller top story, containing the servants'-rooms.

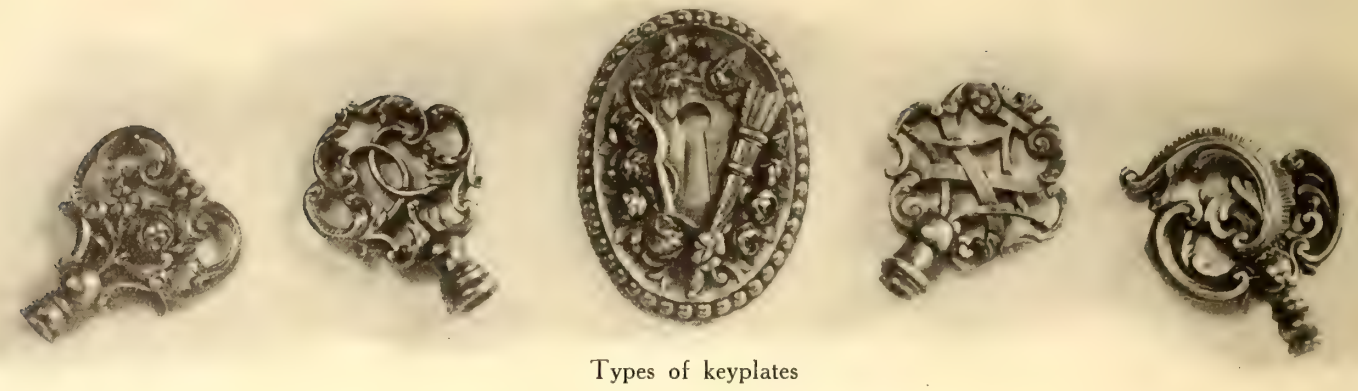
That this house has been built to become a home in the fullest sense of the word cannot be doubted after a study of the plans and a visit to the delightful premises, and there is a sense of permanency about its whole arrangement that one seeks always to find in the dwelling, and which, one is glad to note, is coming more and more to be an attribute to the homes that are being built by our American architects for the homemakers of America.

A sense of breadth, of room—of comfort, in fact—pervades each part, from the broad wings of the building, as seen from outside, to the inner details; and this is the true spirit of the Colonial, that which we look for in it and which contents us when it is present. For we like to think of the passing days as leisured, in the suggestion of which Colonial architecture abounds. In the wide and open hall, the level lines throughout, whether in the fireplace facings or the proportions of the windows, one finds this sense of ease. The impression of a generous and complete domestic life the Colonial must render, whether the forms are imitated in fact or the spirit merely kept with enough of characteristic detail.



Plans of the lower and of the second story

Outside, the same general effect is to be found. The grounds give, as already noted, a sense of freedom by their broad spaces and the generous length of green lawn—a length undisturbed by misplaced shrubbery. At the first turning from the road, at the gate, the house itself is not completely seen, but as one advances it soon appears across the distance of green, and detail after detail presents itself freshly to the sight as one draws nearer. An effect gained just here is not shown by the illustrations—that of the curve at the extreme end of the lawn. This is secured by bordering flower beds, which, without being luxuriant or especially prominent, introduce the needed notes of color and convey an impression of freedom and recreation, which, by way of contrast, gives dignity to the expanse of lawn and at the same time relieves any possible monotony. These flower-beds are arranged in a crescent curve, the house resting, as one might say, upon it. The angle at the right is mostly filled by the roadway, which turns here in order to pass before the house. On the other side, however, there is room for more informal detail, and here are several large, venerable and spreading apple trees of great beauty.



Types of keyplates

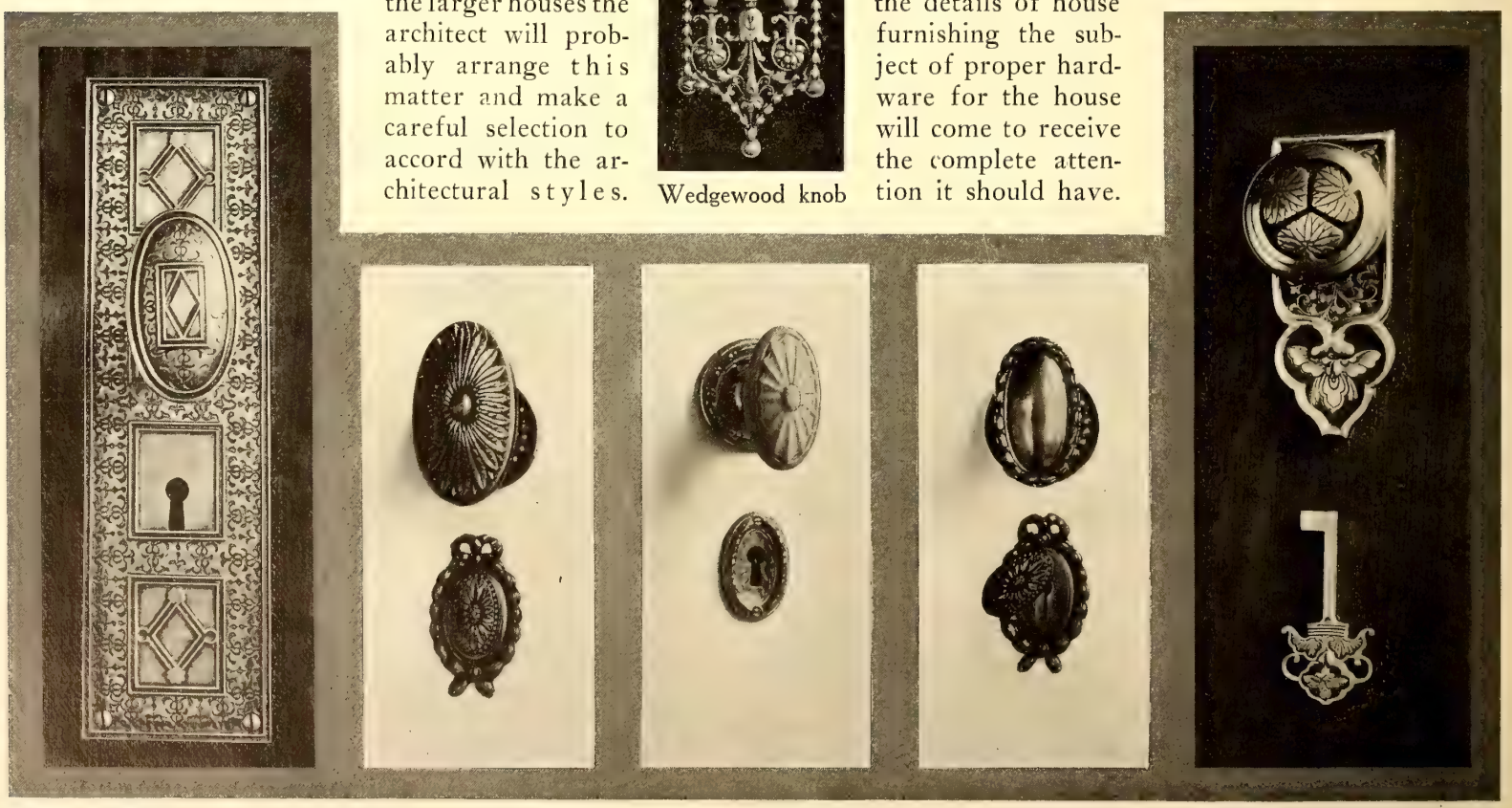
The House Hardware

By Rossiter M. Lenbach

THERE are various things which the person intending to build for the first time is apt to overlook in planning for the house. One of the most important of these is the matter of hardware; that is to say, of the details that should enter into consideration concerning the provision to be made for the proper sort of doorknobs, keyplates, keys, doorguards, hinges, window fastenings, handles, latches—everything, in fact, that can come under the name of house hardware, from cellar to attic-room. One should hardly leave the selection of hardware for the house to the contractor. In fact, this is an item that should be embodied in a separate clause, after the one for whom the house is to be built has paid a visit to the showrooms of the dealer or manufacturer, in company with the contractor's representative, and has given careful thought to his choice of the various utilitarian objects of the sort, which, having been selected, should be itemized and then embodied in the contract. Of course, in the larger houses the architect will probably arrange this matter and make a careful selection to accord with the architectural styles. Again, if the house be put in the hands of a professional decorator, he should be consulted about this matter. However, in the house for the person of moderate means the owner cannot do better than to exercise especial care in the matter of everything that pertains to the house hardware. Just as the craftsbuilders of early times, who wrought with loving care everything that had to do with the detail of the house, so are our best manufacturers of to-day devoting attention to producing well-made designs in house hardware of high artistic merit. Some of these products are reproductions of historic examples, and others are commendable adaptations or entirely original modern designs. Such a set of brass fittings as that of which the doorknob and key are shown on this page, adaptations of designs from Benares, India, is especially suited for bungalow fitting, just as the dainty Colonial design shown at the bottom of the page would be in excellent taste for a boudoir, or the Wedgewood doorknob above it for a room fitted in the Chinese taste. It is to be hoped that in planning the details of house furnishing the subject of proper hardware for the house will come to receive the complete attention it should have.

Artistic keyplates for the door

Wedgewood knob



Many excellent designs in doorknobs, keys, keyplates, handles and various other pieces of house hardware are now to be had in all decorative styles

Antiques as Furnishings

By Howard V. Bowen

Photographs by Jessie Tarbox Beals, T. C. Turner, and others

THE passion for collecting antiques in America really dates from the Centennial, in 1876. At that time, in the effort to make much of our national history and to emphasize our progress, various small "loan collections" were shown, the pieces exhibited being chiefly those which had played some small part in the history of the times, such as the table upon which the Declaration of Independence was signed, and certain old articles said to have been brought over in the "Mayflower."

Taste in America had then reached its lowest ebb. The horrors of the mid-Victorian era were about to give way to the absurdities of the "Eastlake" and the American version of "Queen Anne" periods. Everything was being made by machinery, craftsmanship had been banished and all but forgotten, and people of discrimination were struck with the refinement, beauty and tasteful elegance of the old furniture, silver, glass and fabrics which were being shown. This resulted in a general ransacking of garrets and the bringing forth of a vast assortment of old treasures which had been discarded, but which a lurking sentiment or reverence had preserved from destruction.

Particularly in the older cities of the east, small shops appeared which catered to the new craze by supplying these old-fashioned treasures to those who loved them, but had them not. Along with all this came a greater interest in the study of American history, the revival of certain old customs, the search for ancestors, the formation of the patriotic societies, the study of Colonial architecture, and the general return in matters of taste to the ideas of an earlier and better period. Many people affected to scorn the collecting idea, forgetting that a thing can have a value beyond merely being old; indeed, age alone confers no value, unless it be combined with utility and beauty. But age lends historic interest, as the old makers of household furnishings understood thoroughly the art of combining beauty with usefulness, in consequence of which their works are now eagerly sought after and highly prized when obtained.

After all, what constitutes an "antique"? The term, of course, is purely relative and has no connection with classical antiquity, but was originally selected merely because it was convenient. It may mean just as much or just as little as one likes, very often. An English article, for instance, need not be considered an antique only if dating before the ending of the Georgian period; French, if made only before the fall of Napoleon, and American, only if made before the ending of the Revolutionary era. Such a chronology would practically disqualify almost all American antiques, for in the early days of our national existence very little of artistic value was made in the American colonies; everything was imported from England or France. To me an antique has no value if it does not exhibit the quality of beauty, a beauty which is permanent, enduring and all-satisfying, and if the object was made by an artisan or craftsman before the dominant era of machinery—that is to say, made at least sixty or seventy years ago.

An excellent assembling of antiques and modern pieces

A real collector, like a poet, must be born and not made, though, of course, even the true collector may not have been collecting the same sort of thing his whole lifetime. If one does collect, his collection should serve some useful and really definite purpose. It would be difficult to point out any royal road to starting a collection that would be applicable to everyone's pleasure

in collecting. The collecting of old household furnishings is particularly interesting in that one's treasures may be used, lived with, and loved in a most intimate way. I derive vastly more pleasure from the things I have collected—from my old chairs, tables, candlesticks, brass kettles, and old engravings—than could possibly be obtained from a collection of hornets' nests, birds' eggs, or reptiles preserved in alcohol, though such objects might appeal more to another. I always think that collecting is more fascinating if one discovers his treasures in unexpected and out-of-the-way places, and that it really means more to the collector if each thing he acquires is obtained through bargaining and perhaps at the cost of some sacrifice in the matter of other things—the little self-denials dear to the collector. I am particularly fond, for instance, of two old mahogany chairs in the "Chippendale manner," which I value all the more when I remember that I secured them only by curtailing certain usual small expenditures from time to time throughout an entire Winter and Spring.

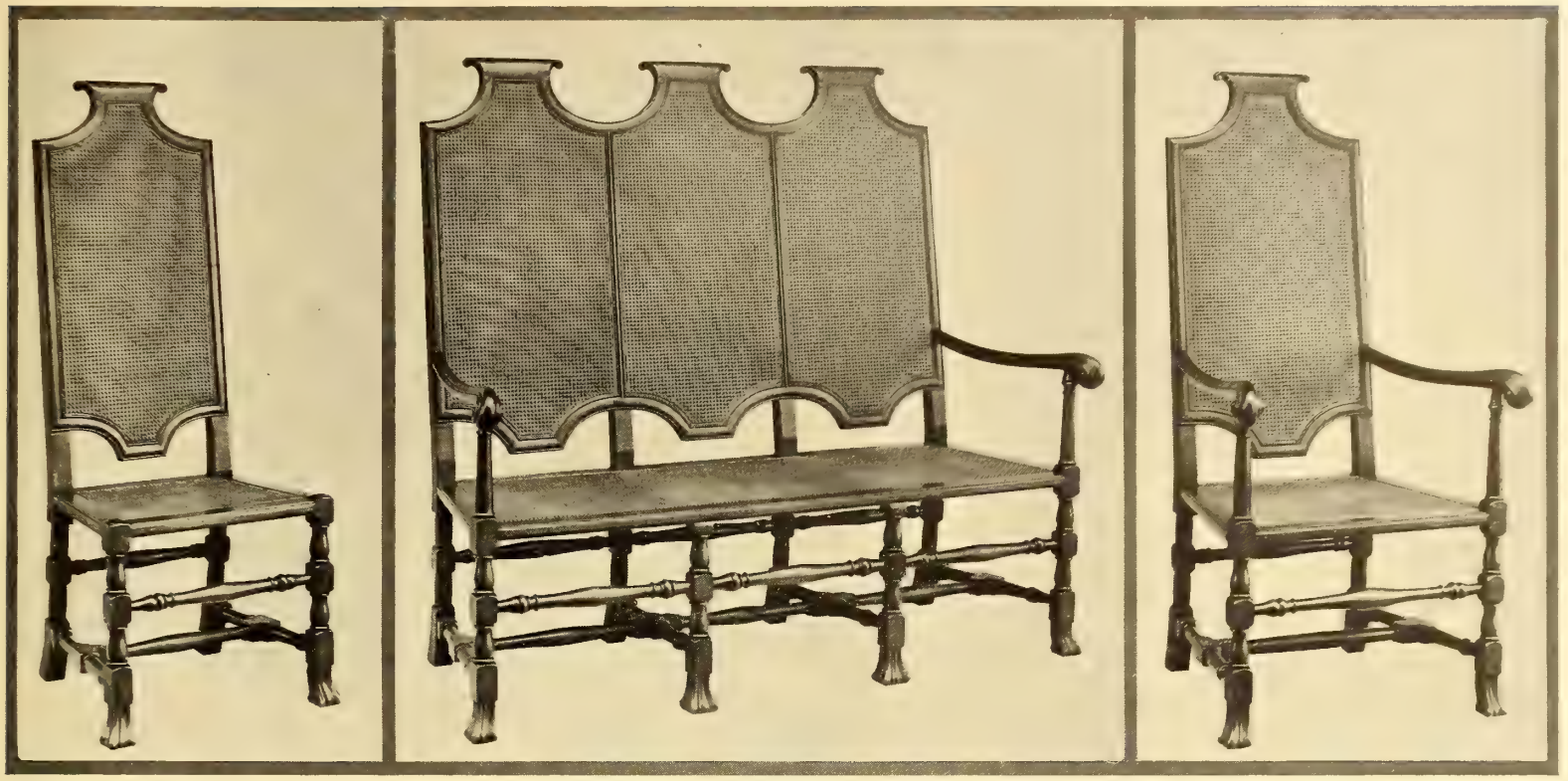
No one thing among my antique belongings is more highly valued by me than an old table in the American adaptation of the Empire style. It was literally discovered in a shabby little shop in Chicago, where cast-off junk of various sorts was being sold. It was certainly in a sorrowful condition; all the hinges of its drop-leaves were rusty and out of order, and it had been sadly mutilated and defaced with several coats of a particularly sticky and depressing drab paint. I first caught sight of it under a pile of dishes and pillows which had been brought from the auction sale of an old hotel, but after carefully studying it I realized its possibilities, and purchased it for almost nothing, turning it over to a little German cabinet-maker who had already proved his value in restoring other forlorn old pieces for me. The table cost me $3.00, the repairs nearly $18,00, but the result is a splendid old piece, faultless in line and beautifully carved, and of the handsomest mahogany I have ever seen, of a tone which only age and very careful polishing can produce, and which could not be purchased anywhere now for under $100.

The little tables and both chairs are specimens of skillful work in reproducing valuable examples of early furniture

The collecting of antiques has had an extended influence of late in forming public taste in America. Educated and discriminating people have demanded for their homes the beauty of the old furnishings seen in England and some of the other countries of Europe, and this demand our own makers have been obliged, somewhat reluctantly, to satisfy. The result is that almost all domestic furnishings not "craftsman" or "art nouveau" are now practically copies of the same things of the English, French or Italian periods. Museums have been drawn upon for ideas and our designers seem to have exerted their utmost ingenuity, which has resulted in a greater splendor and variety of effect than the older makers even dreamed of, made possible by the wider range of materials which are available to-day.

Sometimes an article may come to be copied for a special place. A few years ago a great architect was fitting up a splendid American home in the style of the Italian Renaissance; his own collection included a side-light, or bracket, of wood, heavily carved, colored and gilded, and some twelve copies of the same bracket, fitted with bead-covered incandescent globes, supplied the light for the most beautiful drawing-room I have ever seen. Again, at a certain sale of old studio properties, someone purchased an old Empire chair, from which others were copied to complete the furnishing of a dining-room. The warerooms of a large firm of furniture-makers are full of what are frankly copies of pieces in great museums or of objects purchased to serve as models, and this furniture, I am told, is made almost entirely by hand and combines the beauty of the old-time design with the strength and utility of modern furniture properly made. Indeed, copying or duplicating old pieces is to be encouraged when they are along better lines than modern specimens, and when such copies are faithfully worked out, honestly and carefully made.

Possibly those who will read this issue of AMERICAN HOMES AND GARDENS are themselves making collections of household antiquities, and this word regarding reproductions and imitations may not be amiss. Personally, I do not object to the marketing of a clever reproduction, provided it be frankly regarded and sold as such, since a good copy possesses every decorative and practical value of an antique and is very nearly as satisfactory to the eye. Harm is done only when an unscrupulous and dishonest dealer palms off such an object upon an unsuspecting or inexperienced customer as an original, of which only a very few duplicates, if any, are in existence. The wiles and cunning of the imitators of antiques have often baffled even the most experienced collector, and when even the learned curators of the greatest museums are deluded into accepting as genuine what is proved to be merely a skillful imitation, there is hope and excuse for the average collector, who is generally also an amateur. However, there is always satisfaction and consolation to be gained in knowing the object to be beautiful and pleasing. Most of the imitations of the household antiques which have come to my notice are of metal, pottery, and furniture. Most of the imitations in metal, I have noticed, are andirons, fenders and candlesticks of various kinds, and these imitations are so clumsily made and finished that even the most unsophisticated collector could hardly be deceived into purchasing them as genuine. The finish of these reproductions is quite different from that of the really old pieces. Brass and silver, and even silver plate, acquire with age a wonderfully soft and "satiny" surface, which grows more beautiful with increasing age. This is true even of silver-plated ware, the plating of which has been renewed. I have several articles which I have had replated upon the original copper, and the finish is as different as possible from the hard "brassy" surface of those reproductions which I see on sale in the shops. Of course, in purchasing antiques one must be guided by or-



The chair to the left is a reproduction of the famous William Penn chair preserved in the Banquet-Room of Independence Hall, Philadelphia. The settee and the armchair have been fashioned to complete the suite by modern craftsmen

dinary common sense. One would hardly expect to find on sale anywhere, even in the most plausible shop, an antique seven-light candelabrum from Solomon's Temple. Such a treasure, if it existed at all, would have been acquired long ago for such a museum as the Louvre or the Metropolitan, and one may safely accept as copies all the array of really charming candelabra, lamps and brackets on sale in the shops, to which dealers are wont to give extraordinary histories and put forth at low prices.

Of late years the market has been flooded with reproductions of the different sorts of Majolica, which are unblushingly sold in many shops as original, and from Italy. This class of imitations is particularly exasperating, for the subject of Majolica is as yet a sealed volume to most amateur collectors, and the wily imitator finds a ready sale for his reproductions of plates, decorative panels, and apothecary jars. The best and indeed the only protection for one interested in antiquities of this class is a close and careful study of the subject—an intelligent idea of the technicalities of glaze and surface, and the other points upon which a good guide will be of the greatest possible help.

Another class of pottery which is now extensively imitated is the blue-and-white Staffordshire, a ware especially popular with amateur collectors by reason of its decorative value and of its spirited portrayal of places and events connected with American history. Everyone knows, or has heard, of the fabulous prices paid by collectors for rare examples of this ware. I remember some years ago attending a sale in New York of the collection of a noted amateur, and much of the interest centered upon the eager competition between two or three bidders for a few plates, platters and a tureen of white-and-blue Staffordshire. The very popularity of this ware has caused its successful imitation and the shops are glutted with plates showing the "Landing of Lafayette," the "Boston State House," and even some of the series showing the adventures of "Dr. Syntax." A particularly disagreeable episode occurred not long ago when a dishonest dealer sold for a very high price one of these imitations, the actual value of which is but a few cents. Staffordshire ware is now being made showing modern views. I have seen plates showing excellent pictures of "Trinity Church, Boston" and "St. Patrick's Cathedral," and possibly these plates, and others of the same series, will sell for high prices a century hence—who can tell?

Perhaps after all, imitations of the antique in furniture are the most difficult of detection, for here the craft of the imitator seems to have surpassed even himself. Of course, any clever furniture-maker can skillfully copy old furniture, but in the finishing and "aging" all sorts of clever processes are employed. One finish will be used to brighten a surface, another to deaden its appearance; a solution of dissolved wax will produce still another effect, and the shooting of wood full of bullet holes produces the worm-eaten appearance which the amateur collector usually expects to find in old oak.

Mirrors are among the articles most widely and successfully imitated. I have a charming little gilt-framed mirror which caught my fancy some years ago and which I purchased (with some misgivings) as being a real old Georgian mirror. It bore all the ear-marks of age—frame worn and dull, under surface of glass somewhat injured and several layers of different kinds of paper were pasted over the back, under which was painted or stenciled the name of what was evidently a London dealer, and a date some time in the Eighteenth Century. I long ago decided to regard the little mirror as a beautiful *fraud,* but console myself with contemplating its beauty and by remembering that neither in England nor in America have I ever come across a duplicate.

In arranging antiques as household furnishings care must be exercised in planning their setting. Try to plan their backgrounds so that the quaint old treasures may be set forth with all their beauty and charm well displayed. Often antique pieces may be utilized in building. I once knew a dramatist, for instance, who made frequent trips to Europe, bringing home all sorts of artistic "junk" which he had run across. One of his treasures was a fine old carved beam, colored as well as carved, which came from the façade of an old tavern in Rothenburg and which afterwards was used with excellent effect in a beautiful country home not far from New York.

There can be no general rule regarding the placing of the possessions one may be fortunate enough to acquire. Few can hope to achieve a house which consists of period rooms, each furnished in antiques of some particular era—and many of us must live with our treasures placed in settings more or less "composite." If one's collected antiques be many or few, their interest will make them seem to fit in with any surroundings of fair woodwork and wall covering.

HOSPITABLE

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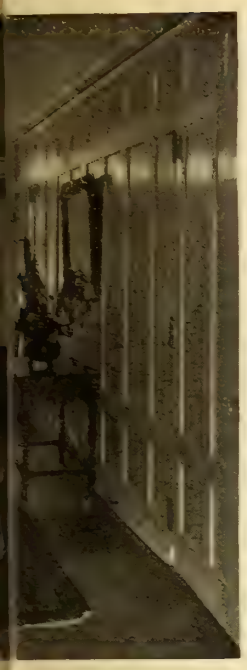

HALLWAYS

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HOSPITABLE HALLWAYS

THERE never yet was built a house that could be considered a success if it did not have an entrance room of some sort that would lend itself to homelike adaptation. There is not a room in the whole dwelling that can boast of greater antiquity, perhaps, than the hall. In fact, the modern house has been mainly evolved, so far as its ground plan is concerned, from the division of the old hall space of feudal times into the rooms one finds in the house of to-day upon its entrance floor. Our best architects expend thought and ingenuity upon the matter of the hallway in order that it may carry in the modern dwelling the sense of hospitality to whomsoever crosses the threshold that admits one to its precincts. It has been said that the hall is the key to the dwelling, and one has but to recall the contrast which the hospitable hallway presents to the hall which is uninviting, to understand how important it is to give much thought to the planning.

This well-planned house is set upon an elevation which commands superb views in every direction, across field lands, toward mountainous country

A Brick House of Distinction

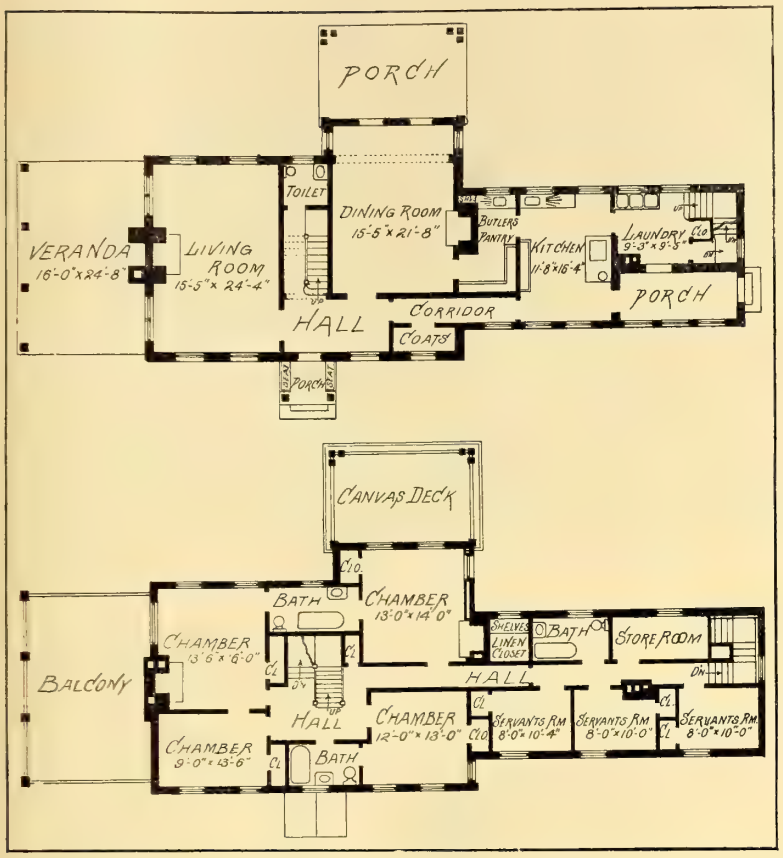
By Henry Norman

Photographs by T. C. Turner

THE most successful examples of domestic architecture in America are, perhaps, those houses which have been built near the larger cities, a success achieved despite the limitations often set by suburban plots. In the present instance under consideration, the house designed for Mr. I. Sheldon Tilney, by Messrs. Walker and Hazzard, architects, New York, there presented to owner and architect alike the opportunity of evolving a homelike dwelling unhampered by a cramped area, and of working out a house with direct reference to the unusual beauty of the locality and its accessibility. When an architect is given a commission to plan a country house of these proportions, to be erected upon a site that offers an endless variety of vista, views across broad fields and mountain foothills, he finds an inspiration that awakens him to a deep interest in the problems before him.

A few years ago the owner of this house acquired a tract of some sixty acres in extent, situated at the summit of the first range of the Orange Mountains, in New Jersey, but convenient to the main road and easily accessible. In selecting the site the fact was borne in mind that it must be suitable for a country house along broad and generous lines. There is not a lovelier spot in eastern New Jersey than that which was chosen, offering as it did a certain ruggedness of scenery that was quite unlike that of neighboring sections. The acreage chosen, furthermore, had the marked advantage of possessing an unusually broad frontage. Therefore, the house was placed back some distance from the road and its grounds planned to be entered by a long, straight avenue lined with trees. While these have yet to attain their growth, this avenue even now presents a very lovely appearance when the foliage is out. Just in front of the house the avenue terminates in a broad, sweeping circle, lending to the home an effect of old-fashioned dignity.

The house is of red brick with white joints, a variety selected for massing in broad spaces, lending its roughness and unevenness of texture to the results of weathering in such a manner as to produce a most attractive, velvety surface in effect. This forms an admirable background for such planting as has been begun, and for that which will follow, probably, in the course of time. In its lines the house is broad and low, with strong emphasis upon the roof-lines and cornice. The exterior effect of the fenestration is particularly good in the main portion of the house, the white trimmings of which form a happy contrast to the tone of the brick walls. The entrance-porch is simple and elegant in design. Indeed, simplicity is the keynote of the design of the house. One notices with satisfaction the restraint that has been shown in the detail throughout the



The porch area indicated by the plans of this house is one of its special and most agreeable features

building, both in exterior and interior, apropos of which one has but to notice the unobtrusive manner in which the architects have worked out the problems of the chimneys. In designing the shutters, those for the ground floor windows are solidly paneled, marked in each upper panel by a quarter-moon sunray, while those of the second floor are of the type commonly known as blinds. This arrangement is more usual in European domestic architecture than in that of America.

With the vast expanse which the elevation of the site commanded, it was possible to give each room a distinctive outlook of its own—a rare enough but happy plan. There are few houses of the proportions of this one that better follow the lay of the land, and that seem to "belong" to it. Moreover, it receives an abundance of sunlight on every side, and it is remarkably well planned for ventilation in all seasons.

No matter how attractive we find a house outwardly, this quality only intensifies the suggestion of the charm one expects to find within its doors. The entrance-porch already referred to has the triangular pediment of its gabled roof supported by turned pillars, with seats on either side of the single door. Above the porch is a little casement window of leaded glass, and trellised vines climb nearly up to it.

On entering the house one finds the ground floor arranged with the same suggestion of straightforward simplicity that the exterior presents. First comes a broad hall, containing the main stairway. This hall leads at the left into a living-room of generous proportions, and upon the right into the corridor leading to the service portion of the house, while directly ahead to the right of the stairway is the large dining-room, opening upon a great canvas-decked porch at the rear.

The restraint shown in designing the exterior detail of the house has been repeated with success in planning the interior, and nowhere will one find an over-emphasis of motifs. The living-room, trimmed in quartered oak, has two sets of large windows upon opposite sides, and French windows either side of the fireplace, opening upon a great veranda sixteen by twenty feet, which is screened in summer and enclosed in glass throughout the cold season. This is provided with a deep fireplace of fieldstones. It is easy to imagine the charm of this out-of-door living-room, with its summer setting of hammocks, bamboo chairs, chintz-covered cushions and the tea-table; but one also thinks of it as a comfortable retreat upon a winter day, with the bright sunshine pouring through its walls of glass, and its rugs and furnishings framing in the crackling fire upon the broad stone hearth.

In furnishing a home one is very apt to overlook the decorative value of furniture in cane-wicker and bamboo, and yet no kind of furniture possesses in so marked a degree the advantage of "agreeing" with any surroundings in which it may be placed. If we except rooms furnished in the French periods, there is almost no style of decoration which would not make a suitable setting for furniture of this variety. The out-of-door living-room, which at all seasons of the year makes so practical a part of this house, is furnished very largely with tables, chairs and settees of this sort, and they are made even more beautiful by summer cushions and coverings of chintz, linen and flowered taffeta, and winter fabrics of rep, velour and the like. In several rooms of this house are chairs, large and small, of oak or walnut, having backs and seats of open canework, and these pieces are quite in keeping with the dignified character of the house, without interfering in any way with the homelike informal feeling which is its chief characteristic.

The dining-room is, perhaps, the most beautiful room in the house. Here the walls are paneled to the ceiling. They are finished in ivory white, against which is arranged furniture in the deep tones of old mahogany. Pictures upon such a wall are usually superfluous and often fatal to best effects, and here the beauty of the paneling itself supplies all the decoration necessary, and the few sidelights, in the simplest of Colonial pattern, give just the relief the eye demands from the white. The color in this beautiful room is supplied by the tones of an old Oriental rug. The candle-shades and the long straight curtains pushed back from the windows, the brick hearth, the brass fitting of the fireplace,

The entrance-porch exhibits dignity in the proportions of its design

Dining-room, showing the French windows

The dining-room, looking toward the hall

the sparkle of glass and gleaming of old silver. Accessory to this room is another porch, which is used as an out-of-door dining-room, and which, like every part of this attractive house, has a delightful outlook, toward mountainous scenery.

The kitchen-wing and service portion of the house are thoroughly shut off on both floors from the remainder of the house, and are unusually well arranged and complete in appointments. A pantry of ample proportions is placed between the dining-room and the kitchen, and the kitchen is provided with every possible device for the comfort and convenience of those who must work therein. The kitchen is so arranged that it has an attractive outlook in two directions. The kitchen-wing is completed by still another enclosed porch.

A corner of the living-room

The upper floor has been so planned that it provides four large family bedchambers, three of which open directly into bathrooms, every room having ample closet space. The windows are arranged to provide cross ventilation. The wing which contains the servants' bedrooms is arranged with a corridor down the middle, which gives each room windows and ventilation of its own. This wing contains the servants' bathroom, a linen closet and a large storeroom, each having a window. This story is connected with the service quarters below by its own stairway, so the servants'-wing may be entirely apart from the rest of the house. The third floor contains two large guestrooms and a bathroom, which connects the two.

This entire house, with its beautiful surroundings and the dignity of its design within and without, is a home which will grow more beautiful with the passing years. One can scarcely expect to produce in the few months since its completion the effect which nature will provide in but a few seasons more, and it is pleasant to imagine what a new home may be like when its walls come to be covered with ivy turning from its summer green to the browns and golden reds of autumn and winter—when the trees will be so fully grown that their branches will meet overhead, and when hedges and shrubbery will have attained full and complete growth.

One of the large bedrooms

The outdoor living-porch

The Heath is an indoor Evergreen that requires careful attention, but it is also one of the most attractive of all the houseplants for cool temperatures

Evergreens for Indoors

By Gardner Teall

Photographs by Nathan R. Graves, Charles Jones, and others

WHILE nearly all of the plants in the window-garden retain their foliage, in effect, the year round, a certain number of them actually do, and this class of Evergreen house-plants deserves consideration by itself, as indoor Evergreens are not so widely known as they should be, nor are they as often found among house-plants as they deserve to be. Aside from their place near flowering window-plants, indoor Evergreens lend themselves to table decoration, and being especially suitable plants for hall and stairway, are most useful in arranging decorative effects when the house is being made ready for some festal occasion. The most interesting Evergreens of the indoor class are, perhaps, the Araucarias, the most easily obtainable species being *Araucaria excelsa,* better known by its common name, the Norfolk Island Pine. This distinctive plant is, in reality, a little tree of coniferous habits, quite as lovely, though not so unusual and curious, as some of the dwarf Japanese trees that have become more or less the fashion. Its branches radiate like the spokes of a wheel from the central stem, and its rich, spiny foliage is a dark yellow-green. It is the most symmetrical of the indoor Evergreens.

The Norfolk Island Pine is the most popular of all the easily-grown indoor Evergreens

The *Araucaria robusta* is a more sturdy species and it is more compact than the first named, while the *Araucaria glauca* is a handsome blue-green leaved variety of the same species. The indoor gardener may be interested to know that the cousin to these Evergreens (the large form of the Araucaria, known to botanists as *A. imbricata*) is said to be the only tree which the monkey is unable to climb. Small specimens of the Norfolk Island Pine, and of other species of the Araucarias, are comparatively inexpensive, and may be had from almost any reliable nurseryman. A well-started specimen will require but ordinary care, as this Evergreen grows freely under almost any conditions, where light, water and a little heat can be given it. The Araucarias must be watered sparingly, and care must be taken not to transfer them too rapidly to larger pots, as they do not like frequent disturbing. These Evergreens should be repotted only when one feels sure they require more room than they have already been given.

English Ivy is an Evergreen of the broad-leaved variety, and although it has long been one of the most popular plants in the window-garden, it may not have been classed among Evergreens by those who have not familiarized themselves with plant divisions. The botanical name of the English Ivy is *Hedera helix,* which it is well to know, in order that its variety, *Hedera helix Canariensis,* commonly known as Irish Ivy, may not be chosen by mistake in place of it. This latter Ivy has much larger leaves, but it is not nearly so attractive for indoor growing, unless one is indifferent to the pattern effect and merely seeks abundance of foliage, as often is the case. The English Ivy will stand a goodly amount of watering and must always be generously potted. As for its potting soil, any good house-plant soil will do that has a mixture of sand in its composition.

The Camellia's beautiful, dark, shining leaves are remarkably persistent, and this should receive more consideration as a house-plant possibility than has yet been given it. The remarkable beauty of its flowers is, of course, known to everyone, as it is a favorite flower with poets and novelists. Camellias may be had from nurserymen in both single and double varieties, in white, pink, and red, the *Alba plena* (white), Lady Hume (pink), and the Hovey (red) being good varieties to select. Keep the potting soil for Camellias just moist, as over-watering will cause their buds to drop before flowering. Camellias should be repotted every two years in a mixture of equal parts of peat, sand, fibrous loam, and leaf-mold.

The Myrtle, or Periwinkle (*Vinca minor*), a plant which the ancients dedicated to Venus, may be grown in any house, although one usually associates it with outdoor gardening. Its bushy growth must be induced by frequent trimming. A rich loamy potting soil is best for this plant, and it should be given a sunny place in the window-garden. There is a variegated species of Periwinkle to be had (*Vinca minor, var. Alba*) which presents bright yellow foliage, and also a somewhat rarer variety, having white instead of the usual purple flowers. Beside these there is *Vinca rosea,* a pink, erect-growing species, which requires an abundance of sunlight and liberal watering.

Azaleas are among the most beautiful of the broad-leaved Evergreens, although outside the greenhouse it is difficult to grow them in northern temperatures with anything like success. The Azalea thrives best in a cool and airy room. *Azalea Indica* is the usual species one meets with at the florist's. The proper night temperature for Azaleas is from 50 to 60 degrees. After flowering (in the Spring), new growth in the plants must be encouraged by warmer temperature, and though the potting soil requires to be kept just moist, it must never be permitted to become dry.

Sweet Bay (the *Laurus nobilis*) is one of the most decorative of indoor Evergreens, being cultivated with stem and globular crown, or as a bushy or pyramidal plant, leafing to the soil. It must be kept very cool and should be carefully cellared in Winter. When brought out for indoor use in Summer, the Sweet Bay should be placed only in unheated rooms.

The Partridge Berry is the only hardy Evergreen we have which, in its native state, carpets the ground and bears red berries throughout the Winter. *Mitchella repens* is its botanical name. It does exceedingly well when brought out of the woods (though it may be procured without trouble from nearly any florist or nurseryman), and it should be grown under a bell-glass or in a vivarium; that is, an aquarium-like case for tender house-plants.

The Laurustinus is an Evergreen native to southern Europe, and though hardy to Great Britain, it requires house culture in our climate, flowering indoors from November to April. Its blossoms are fragrant, white flowers, which are well set off by the dark green of its foliage. This plant stands indifferent usage, being almost hardy, but it thrives best with generous potting and in earth composed of one part each of sand, leaf-mold and well-rotted manure. Care should be taken to give the leaves frequent washings, as they are great dust-attracters, and therefore their beauty is marred if the foliage is not kept clean. This Lauraustinus bears the botanical name of *Viburnum tinus,* and thus it is closely related to the common Snowball of the garden, the *Viburnum Populus.*

Heath (*Erica*), like the Azalea, produces a multitude of small, hair-like roots, and requires loamy potting soil, rich in decaying organic matter. Good pot drainage is also requisite, and rain-water should alone be given these difficult Evergreens. As a general rule they stand cool temperatures unusually well, and they must have plenty of air, though cold draughts will speedily injure them. Do not permit these plants to grow tall and spindling, but keep them low, bushy, and compact, by pinching and by the frequent turning of all sides to the light. This preserves symmetry. Few house-plants make a greater show. A single day's neglect to water a Heath, or a day's over-watering, may kill the plant; therefore many, through carelessness or a lack of knowledge of its requirements, have failed to raise the Heather successfully. The following varieties will be found the best for the window-garden: *Erica Cavendishii* (yellow), *E. caffra* (white and fragrant), *E. hyemalis* (pink), *E. persolute* (red), and *E. ventricosa* (purple).

The Daphne is a beautiful, sweet-scented Evergreen, but it requires careful attention, for which reason it is seldom met with in gardens indoors. *Daphne Indica* is the variety for window purposes, bearing terminal bunches of fragrant white flowers. The leaves are long, glossy, and dark-green. It should have plenty of pot room, and its soil should (in common with that of all house-plants) be well drained.

The waxen-like Camellia is the loveliest of all indoor Evergreens

The Yucca's handsome, stout foliage makes this well-known plant exceedingly decorative as an indoor Evergreen. Every traveler who has visited California recalls the great Yuccas to be found there, especially in the southern part of the state. Occasionally these giant species are transplanted to our gardens, and the smaller varieties thrive in gardens by the sea, being useful for decorative borders. The *Yucca filamentosa* is especially recommended to the amateur for the purpose, as also are *Y. aloefolia* and *Y. quadricolor.* Do not repot often, and give Yuccas a rich loamy soil. *Yucca pilomentosa var. variegata* has leaves streaked with white and is very attractive.

The Kennedya is a lovely and graceful twining indoor Evergreen, and is not as often met with in the window-garden as it deserves to be. The shoots should be kept well trained to the wall, or against a frame. Give it plenty of water. *Kennedya Marryattae* is the scarlet variety, while the blossoms of the *K. monophylla* are a rich purple. There is not a finer climber for the window-garden.

Although the varieties of indoor Evergreens here mentioned by no means exhaust the list of those that are available for house culture, those described are especially worthy the attention of everyone who has a window-garden and loves house-plants, and who, though acquainted with some of the more common varieties of these plants, may not have known that they come under the head of true Evergreens, which fact may, perhaps, lead the amateur indoor gardener to cultivate a real and lasting interest in them.

Six-light fixture of wood compo furnished with key (sarko) control

One-light bracket, costing about $2.50

This two-light bracket of wood compo, frosted bulbs, costs about $30.00

A very good bracket, costing about $3.00

Louis XIV lantern of armor bronze. Ground glass conceals bulbs

Lighting Fixtures

By George Leland Hunter

RESIDENCE illumination is comparatively a new art. Before the invention of the incandescent electric lamp and of the gas mantle, it was difficult to get enough light; now the problem is to distribute the light properly and shade and tone it so as to eliminate glare. To residence illumination comparatively little attention has been devoted by illuminating engineers. Their efforts are concentrated on commercial and public buildings, where contracts are larger and more lucrative. And when they attempt to apply to the lighting of houses the experience gained in the lighting of hotels and stores, they discover that conditions are diametrically dissimilar. Even in commercial lighting, engineers are apt to rely too much on the photometer and on algebraic formulæ, trusting them rather than the less complicated and more direct conclusions of the human eye and common sense. In other words, they do not appear to realize that while the photometer is useful in figuring cost and quantity, the final test of illumination, public or private, under scientific direction, is its effect on the vision.

It is absolutely necessary to approach the lighting of houses from the decorative point of view. The location of the outlets and the number of lights per outlet depend not only on the size and shape of the room, but also on the color and pattern and texture of walls and furniture. Important also is the question of style. If an interior is Colonial, or Georgian, or French, or Mission, the lighting fixtures should conform, in finish as well as in shape and ornament. Different periods also have their preferences as regards material—wood and compo fixtures associating themselves with Gothic and Renaissance, crystal glass beads and balls and prisms with the Louises, the Queen Anne and the Georgian periods, dull brass with the Colonial, hammered old brass and hammered old iron with Mission, etc.

A shower with a 27-inch drop, and shades in ground crystal, such as this, sells for $31.50

The best lighted houses are those whose illumination has been planned and whose lighting fixtures have been selected by the architect or decorator, working in close understanding with the manufacturer. Here the architect has a distinct initial advantage—not always appreciated—the fact that the owner's confidence is his from the very beginning—from the time of the adoption of the plans—and that he is in a position, where the use of electricity is concerned, to impress upon the owner the desirability of selecting the lighting fixtures *before the wiring is done.* The wiring is of fundamental importance. Unless the outlets are properly placed, with sufficient current for each, the skill of the wisest decorator and of the most competent engineer will fail to accomplish good lighting. Re-wiring is so expensive and often so difficult—involving the mutilation of finished walls and floors—that owners cannot often be persuaded to authorize it. The wiring of many houses is too often left to the electrician, who seldom knows anything about the art of effective and economical illumination and whose interest it is, usually, to complete his contract with as little cost to himself as possible. Either he underwires the house and makes it impossible ever to light it well, or he overwires the house in such a way as to secure the minimum of illumination from the maximum of current.

Important in wiring for electric lighting is the question of control. Fixtures that are out of reach, and fixtures and brackets with candle lights and miniature bulbs, should have switch control. The sarko switches, with key often used in the backplate of candle brackets and others too small for regular sockets, are not particularly trustworthy or durable, especially when overloaded, as they often are. Despite the initial cost, it will pay in the long run to have all ceiling fixtures of the average house controlled by switches. In the more expensive houses the brackets also will all be on switch, and there will be such useful refinements as burglar lights and master switches, and switches to light the hall above or the hall below, etc.

In preparing a general scheme of illumination for a house, the problem should be approached room by room and floor by floor, the main rooms of the first floor taken into consideration first. Starting, for instance, with the dining-room, 14x17 feet, with ceiling ten feet from the floor, this means 238 square feet of floor space, which divided by fifty, equals a trifle under five as the number of 15-candle-power lights necessary, where ceiling and walls are not too dark. At this point I should explain that I have found fifty to be a convenient divisor for use in determining the proper number of lights to a room of given size, with ceiling 9 feet 6 inches, which is the average height for ceilings throughout the United States, and for which many manufacturers plan their ceiling fixtures, giving them an overall drop of three feet unless otherwise ordered. This brings the bottom of the fixture 6 feet 6 inches from the floor, which is right for most drop fixtures with lights up. But in very large, higher rooms fixtures should hang higher than this, and in some low rooms perhaps three inches lower.

This dining-room is agreeably lighted by wax candles, but not brilliantly, in spite of the high reflection that is derived from the white walls and from the light ceiling

Of course, the higher a room is the more light it takes to illuminate it—something like 10 per cent. for every additional foot over 9 feet 6 inches—while rooms as low as 8 feet 6 inches, with light ceiling and walls, need considerably less.

To return to our dining-rooms that require five lights. For a ceiling fixture we can choose between a hanging dome, that should drop to a height of 4 feet 6 inches above the floor, a shower, a stem fixture, or a ceiling plate, all with lights pointing down. Once leaded domes were the fashion. The dining-room without a dome was as much out of it as the living-room without a dado was twenty years before this time. To-day, in many parts of the country, the shower is the *sine qua non* of the multitude. In these localities, the dining-room without a shower is considered as barren as the Desert of Sahara. It makes not much difference what kind of a shower, or whether it gives the right kind of light in the right place; the great thing is to have a shower, like other people. The reason for having the dining-room fixture bulbs and shades point down is to light the table much while lighting the walls and ceiling little. Only when the room is used also as a living-room, or for general entertainment, is much general illumination necessary.

On the whole, it seems to me that a leaded dome of good design, in luminous colors, lights a small dining-room more suitably and more agreeably than any other fixture. But everything depends on the colors and the quality of the glass. The cheap opaque dome that reflects *all* the light down, leaving the upper part of the room in black shadow, is hard on the eyes and decoratively ugly. But the dome that glows with golden radiance, distributing enough to ceiling and upper walls to avoid blackness there, is easy on the eyes and right decoratively. The fault with ceiling plates and showers and stem fixtures is that they give too much general illumination and not enough at the table. But when the lights hang low, shades carefully selected will cure the fault. A special reason for leaded, or iridescent, or color-enameled shades in a dining-room is that of all the rooms in a house it is usually and rightly the richest in color. But be sure that the colors of the shades are close to the colors of the room—with a tendency away from reds and blues and greens towards golden yellows and oranges.

Here a few words on color in lighting may not be out of place. As everybody knows, many persons are color-blind

Crystal beads and balls of crystal break up and distribute the light from candles with frosted cone bulbs. The illumination is brilliant, but without disagreeable effect

to reds and blues—the red rays at one end of the spectrum being too long for their eyes, and the blue rays at the other end too short. But with the golden yellow rays in the middle of the spectrum everyone can see well, and in them is contained the effective luminosity of light. Once it was the fashion to cry for white light, and every new electric lamp put on the market was advertised by its promoters as giving whiter light than any other and light more like that of the sun. Now, white light may be all right when matching ribbons and dress goods and millinery—although one would imagine that in matching fabrics to be seen by night the kind of artificial light commonly found would be better. However, white light at its best is not at all suitable for decorative illumination. No one who has had experience in decorating would use tungstens in residence lighting, except in the kitchen or in domes and in lanterns and shades that partially eliminate the reds and blues, turning the white light in the direction of golden yellow. Good light in a kitchen prevents waste and promotes quickness and accuracy of domestic service. The best way to secure it is with a single 60 to 100-watt tungsten, close to the ceiling, with frosted top and with wide shade of alba glass. At minimum cost, on account of the superior efficiency of the tungsten, the room will be flooded with illumination that is brilliant but not disagreeable, though not satisfactory for the master rooms. It is the master rooms—main halls, library, reception-room or parlor, sitting-room or living-room—that call for the principal part of the fixture appropriation. The fixtures must be in harmony with the furniture and draperies that in these rooms are more expensive and elaborate than elsewhere. And in these rooms the illumination must be brilliant; not only the general illumination when guests are present, but also the local illumination, when one wishes to read, or write, or sew, or embroider.

General illumination, of course, means light evenly distributed through the whole of a room, while local illumination is light concentrated at one particular spot. This general illumination is most economically and agreeably obtained by wall and ceiling reflection. When walls and ceilings are light in color—especially in ivory or cream—and the ceiling is not high, light is reflected and re-reflected and efficiency is multiplied. Twenty-five watts here produces more illumination than one hundred watts in a room with dark walls and ceiling. It is important to remember that the amount of light generated in a room by no means determines the amount of illumination. Complicated pattern and intricate texture in dark tones on furniture and draperies and walls swallow up the light. Under such circumstances lights must be many and widely distributed, for the only luminous

A well-lighted Colonial dining-room. The cut-glass disk over the table sends down a mild illumination that can be supplemented by the extra size (16-candle-power) lamps around it

surfaces are those of the lights themselves and their shades. A room looks high only in proportion as luminous surfaces meet the eye. And what the eye says about the brightness of a room is the only real measure of illumination that we have. In other words, the room that looks dark is dark, and no photometer test counts in rebuttal.

Also, the most useful light for general illumination of a residence is that which is reflected back and forth between the heights of three and seven feet. It is in this space that are located the persons and objects and surfaces whose visability give character and individuality, even existence, to a room. The floor of a room need not—indeed, should not—be brilliantly lighted. So that the custom of covering all or part with rugs whose pile devours the light is an excellent one from the point of illumination. Whether the ceiling shall be brightly lighted depends upon the height of the room as compared with its lateral dimensions. Lighting the ceiling brilliantly increases its apparent height, while throwing it in shadow brings it down. So that keeping the light away from the ceiling of small bathrooms and narrow halls and concentrating it on side walls tends to make the proportions of these rooms more agreeable. Fixtures with lights at about the height of six feet six, and pointing down, with lights and shades adjusted to give the desired distribution, will accomplish this.

The lighting of large square halls presents the same problems as the other master rooms. If the ceiling is of average height and light in color, we can utilize ceiling reflections from fixtures and brackets with lights up. But if the walls and ceiling are dark and nonreflective, we must have many outlets with both fixtures and brackets so placed as to give the maximum distribution laterally. This means that a dark, nonreflecting room twelve feet square must have at least four wall brackets in order to look illuminated, and in larger rooms there must also be one or more fixtures to light the middle of the room. The shades on the lights should be large in order to present a large area of bright surfaces.

The old-fashioned way of lighting such a room was from fixtures only, with transparent glass bulbs pointing down. The fixtures were usually combination gas and electricity, and the location an inheritance from the gas-only period. This style of installation is not only wasteful but dangerous. The glowing electric filaments burn the eyes terribly by contrast with the prevailing dark surfaces, and have ruined the vision of thousands. In this respect the old-fashioned open-flame gas-burner was far better. It does flicker, and it does vitiate and heat the air, but the broad, yellowish flame is almost as agreeable to the eye as that of the kerosene lamp.

The ground glass shades of this shower are happily round in shape. The square ones commonly used would over-emphasize the squareness characteristic of the Mission style

Frosted bulbs are one of the most blessed inventions of the age. They absorb ten or fifteen per cent of the light, but increase the amount of effective illumination. With eighty-five per cent of the light, the eye can see better than it could with one hundred per cent. For the burning of the eye by the filament closes the pupil and makes it inefficient. Frosting also tones the light slightly towards cream. Frosted bulbs, especially round ones, large for their power, are among the most efficient distributors of agreeable illumination. By them the quality of tungstens and tantalums is much improved and the ultra-whiteness softened. Many architects now recommend *brackets only* for the main living-rooms and chambers. Some of them seem to be inspired by animosity toward the word "chandelier," while others object to any kind of ceiling light except cove lighting or other forms of the so-called indirect lighting, which are wasteful as well as "bad" art. Light is the most beautiful thing in the world. It is not only beautiful in itself, but upon it depends the beauty of all beautiful objects. Without light, they might as well be nonexistent. Carefully to conceal light sources is deliberately to abandon the greatest decorative possibilities. The work of the illuminating artist is to place and so shade the lights correctly that they glow with gentle, grateful radiance. A room 20x22 and 9 feet 6 inches high can be lighted perfectly well with brackets only (one two-light and four one-light ones), *provided* the color scheme of the room is light and surfaces and textures plain and simple. But if there are rich and heavy upholsteries and draperies, and dark woodwork and furniture, and brocade-paneled walls with compartment ceiling, the number of bracket lights should be doubled, and four or five lights at the ceiling will also be advisable.

A lantern in old hammered brass. The glass panels on the under side are a good feature, preventing shadows below

Reverting to the matter of underwiring, there recently came to the writer's notice an instance wherein a lighting-fixtures salesman, in default of blue-prints or wiring plans, had distributed brackets and fixtures and lights among the

outlets according to his best judgment, the result being a house by no means overlighted. Unfortunately, the electrician had been given the wiring contract for a lump sum and without definite specifications—just a general understanding to do a satisfactory job. Only after the fixtures were up was it discovered that the circuits were overloaded, i. e., had to carry more 16-candle-power bulbs (or their equivalent) than is allowed by the regulations of the National Board of Fire Underwriters. Consequently, several two-light brackets had to be replaced by one-light brackets, a sixty-watt tungsten substituted for three regular pear lamps on the dining-room dome, and one ceiling fixture omitted altogether. The only alternative was rewiring, at a cost three times that of the original wiring. Of course, the fixtures salesman should have insisted on plans showing the arrangement of outlets on circuit, and the man who did the hanging should have reported the situation before making the installation. But they didn't, and the electrician, not being financially responsible, the final outcome was a poorly lighted house and a considerable loss to the firm who sold the fixtures. If the lighting had been planned first, and the blue-prints marked with outlets, and lights to outlet given to the electrician as part of his specifications, this would not have happened.

I cannot sufficiently emphasize the difference that exists between the simple rooms in light colors and the elaborate rooms in dark colors. The latter take from two to five times as much light, without being satisfactorily illuminated. With gas there is much more reason for avoiding fixtures than with electricity. The electric bulbs can turn up or down or at any angle, making it easy to control the field of distribution, but gas open-flames point up only, and must be kept far from the ceiling lest they burn or smoke it. For a long time electric fixtures copied the awkwardness necessary to open-flame gas installation, and, of course, combination gas and electric fixtures are still obliged to do so. Only recently did there seem to come understanding of the completeness of the release from cramping conditions. Now we point our electric fixture lights up or down or at any angle, and locate the lights in the ceiling or close to it, or eighteen inches below it, or wherever else the best and most agreeable distribution can be obtained.

The open-flame gas fixture is an ugly thing that casts ugly shadows below, and the mantle flames, pointed either up or down are not much better. But a single mantle flame, high in a small light room, with abundant ceiling and wall reflection, is the extreme of economy and effectiveness. Groups of mantle flames on a single fixture destroy the attractiveness of a room, and burn the eye quite as badly, though differently, as the clear glass electric bulb. Mantle flames are best and most effective, as well as least ugly, in a large room when installed on brackets extending far enough from the wall to give good wall reflection. Two of them are sufficient to light a room 12x22. This is the cheapest illumination known in cities where the price of gas is reasonable and the gas is of fair quality.

Of fixtures and brackets the shades are a most important part. While frosted, round, and pear, and cone bulbs can be used uncovered, the desire, founded on reason, to increase the area while decreasing the intensity of the luminous surface makes the use of crystal, iridescent, or opalescent glass shades common. The crystal shades of better quality are ground and ribbed, ground and cut, or plain ground (roughed or frosted or sandblasted). They come in the most various shapes and sizes, from narrow to wide, making it possible to secure any desired distribution, and the majority of them are planned to cover the regular 16-candle-power incandescent bulb. The light of this being slightly orange, is very agreeable when sifted through the frosted shade. The incandescent shades are extremely interesting, with their mysterious tones and rainbow tints, but only the light ones are satisfactory from the illumination point of view. The dark ones absorb too much light. Particularly interesting and fairly economical of light are the pearl and crystal iridescents. Leaded shades are satisfactory on fixtures and brackets in the luminous tones only—the golden yellows and soft browns and pale greens. Silk shades are comparatively opaque, but very beautiful, especially to direct the light down from upward-pointing candle lights. Of course, they are lined with white cambric to increase the reflection. Beautiful beyond description are the carved alabaster bowls imported from Italy. They glow with a milky light that brings out the beauty of the carving sufficiently, but not too much. The designs are classic, and they demand a classic environment. The glass imitations of alabaster are surprisingly good and far less expensive. Alabaster bowls and lanterns of various styles and materials are especially suitable for entrance halls, where brilliant illumination is not desired. The material of which most fixtures are made is brass, which is very obedient in the foundry, or on the lathe, or under the hammer, or in the press. It also takes numerous finishes easily, and holds them well when they are well applied. But the finish of very cheap fixtures is fleeting and looks more stained and spotted after six months than it should after six years. The metal work of very cheap fixtures also lacks durability, being so thin and weak that slight knocks and injuries injure it beyond repair. The finest fixtures are made of bronze, that might be described as a "sublimated kind of brass." It costs much more and is more difficult to cast and work, but is vastly harder and more durable, interpreting the most delicate outlines definitely, and deserves the reputation in the arts it acquired thousands of years ago. At the Metropolitan Museum of Art, New York, the bronze statuettes and other objects from Roman and pre-Roman days are a permanent testimony to its durability.

Once polished brass and bright gilt appealed to the multitude; now even they accept dull brass and dull gilt. But there are other finishes, like antique brass and yellow bronze and Pompeian, that should be more generally ordered. The antique brass finish is particularly good on the hand-hammered brass fixtures and brackets for Mission and rustic rooms. Pompeian (vert antique) is above all a finish for porches and out-of-door pieces, and for pieces in the classic styles (being reproduced from the ancient bronzes that during the ages turned a white and flecked green of delightful texture). Yellow bronze is much warmer than dull brass, and better for living-rooms and rooms fairly rich in color. Gold and silver, which increases the cost by twenty per cent, are suitable only for more expensive fixtures.

Fixtures that deserve to be put in a class by themselves on account of their great beauty are those in carved wood or compo, principally in the Gothic and Italian Renaissance styles and styles derived from them. The finishes are antique gold, antique silver, and antique oak, often with polychrome, and the effects are large and noble without the ponderosity of metal. Compo fixtures are at least a third cheaper than carved wood, and do not split like wood when subjected to moisture. But they do check and chip, slightly, which, with reasonable care, does not injure them—rather accentuating the antique character with which they are born. Fixtures in similar models that will not check or chip are those in the so-called armor bronze, which is copper-plated compo.

Among attractive novelty fixtures are those with ground and slightly tinted glass shades, enameled in color. These are suitable for dining-rooms and Mission-rooms and unconventional rooms generally. They give a very soft and agreeable light, and have a distinct decorative character of their own. Another feature is, they are not at all expensive.

Many consider the Jersey breed produces the ideal family cow, as well as being one of the most beautiful and the best all-round dairy animal

The Family Cow

By R. M. Gow

THE cow has been so long and intimately identified with the domestic life of mankind that it has been said that wherever there is a cow there is a home. Home is not home without a mother, and without a cow it is not so much of a home as it is possible for it to be. As the very climax of the domestic calamities enumerated in the old Scotch song, "Auld Robin Gray," the "coo was stolen awa'." The home may be a peasant's turf hut in Scotland, a log cabin in the wilds, a board shanty, a modern suburban home or a multi-millionaire's palace, yet the meek and patient cow is ever an important and valuable adjunct. She accompanied our American pioneers as they journeyed ever westward to people the wilderness and found homes, helping to haul the family wagon as well as to sustain its members, as they carried with them—

"A book and plow and pen,
A cow and sickle and seeds;
Yea, all God needs
For the making of men."

For many of us the family cow occupies a prominent place in those pictures which memory draws of "our life's morning march, when our bosoms were young"; and although we may have attained to circumstances of affluence and even luxury, we sometimes sigh:

"O, for festal dainties spread
Like my bowl of milk and bread,
Pewter spoon and bowl of wood
On the doorstep gray and rude!"

What then more natural than that, in these days when so many are returning to the land, we should consider the cow as almost a necessity to the completeness of our country or suburban home? Waiving all sentiment, there is no better aid to pleasant and economic housekeeping than that derived from the dairy product of the cow, the source of some of the best and most wholesome of foods, and of the most necessary and universal delicacies of the table, either alone or as culinary necessities.

The family cow should be a producer—that is to say, her yield of milk should be generous in quantity, rich in quality or percentage of butter-fat and casein, and persistent the year around. In her selection, therefore, knowledge of dairy type and conformation is necessary, for dairy quality and perfection of dairy type are very apt to be found in combination in the same animal, although there are exceptions to the rule, and the ultimate criterion is the milkpail and the butter-fat test. The conformation of the good dairy cow should be somewhat like a wedge, thin in the front quarters and wide in the hinder, looking from the head. The side view of the body should present much greater depth at the flanks than the front, with the ribs well rounded out and a capacious paunch. This latter shows capacity for food, the raw material for the animal to turn into milk. The line of the back should be reasonably straight, but the older animals will drop some at the loins under the continued weight of the digestive organs and calf-bearing. The rump should be straight and broadly arched. The head should be clean cut, with bright and prominent eyes and a broad muzzle, the sign of a good feeder, and large distended nostrils show constitution. The neck should be thin. The most important feature to study is the udder. It should be capacious, flexible to feeling with the hand, with teats evenly placed and of such size as to be easily handled. The udder should extend well posteriorly, attached high up behind and run well forward. Large milk-veins should characterize the mature animal, indicating a good supply of blood to the udder, needful for the production of a large yield of

milk. The thighs should curve well outward, to accommodate such an udder.

Of course, the family cow should be a healthy animal. All breeds are equally susceptible to bovine tuberculosis, and while the degree of the communicability of this disease to man is the subject of debate, no one would knowingly risk using the milk of an infected animal. The tuberculin test should be insisted on before purchase, and even then purchase should be made only from a reputable breeder or dealer, as animals may be "plugged"—i. e., the tuberculin may be injected a short time before the test so that the animal may not react to it. A healthy animal, kept for family use in sanitary surroundings, is not apt to contract the disease. Some of the dairy breeds are of more delicacy of build than others, but it should be remembered that delicacy of conformation is not by any means the same as delicacy of constitution, nor does coarseness indicate strength. Beauty is a very desirable characteristic of any domestic animal, even the cow, and therefore is worthy of consideration, for beauty combined with utility should be the keynote of all our domestic economies.

Enumerating what the family cow should be and what requirements she should fulfill raises the question, What breed possesses them in the highest degree? For it is to be presumed that the family cow is to be a thoroughbred, not a nondescript or mongrel. The various breeds of dairy cattle have been developed under different circumstances, and with somewhat different purposes in view, and each of them, therefore, although possessing much in common, has distinct characteristics. Some breeds of cattle have been bred for generations for the production of beef; on the other hand, the various dairy breeds have been bred as producers of milk, or butter, or cheese, and one or all of these it is the function of the family cow to provide. The four prominent breeds of dairy cattle are the Holstein, Ayrshire, Guernsey and Jersey, the last two being known as the Channel Island breeds. In size and weight these breeds run in the order in which they are mentioned, the Holstein being largest and the Jersey smallest.

The big Holstein is a showy animal in the pasture, from her clear black and white map-like markings. A native of the lush, damp, bottom-lands of Holland, she likes a cool climate and level pastures, and has not been found well suited to warm climates and hillside grazings. She is a very heavy milker when fresh, is very popular with raisers of market milk, the low percentage of solids natural to Holstein milk not being a detriment when milk is sold with regard to quantity only.

The Ayrshire has long been the favorite dairy cow of Scotland, where she has had to find her living on wide ranges of hilly pasture. This has made her a good rustler where there is plenty of scope for her activity, and she fits in where the Holstein is not so suitable. Her advocates claim for her cheapness in the production of milk solids, "toughness" and "ruggedness." Ayrshires have usually much white on them, with straight backs and prominent horns.

The Channel Island breeds, the Jersey and the Guernsey, have much in common, and their qualities are such as to particularly recommend these breeds for the family cow. Both give rich milk and have been developed in close intimacy with the family on small farms, attended to mainly by the women on the small islands whose names distinguish these breeds. The Guernsey is red and white in color, and somewhat larger and more heavily built than the Jersey. Her advocates claim her to be a cheap, or economical, producer of butter-fat. Her milk is of a rich yellowish color, caused by a natural pigment, which is harmless, but adds nothing to the nutritive value of the milk.

A dairy authority of national reputation has said that the Jersey is one of the most beautiful animals ever developed by man. She is of various shades of fawn color, with more or less white markings; but many are entirely solid colored. The young animals are deer-like in their grace and beauty. Their friends claim much more than beauty for the Jersey, however, and in great public competitive tests they have been declared the most economical producers of milk for all purposes, and also of butter-fat. Many consider the Jersey the ideal family cow, as well as being the best all-round dairy animal. She is well fitted by size and disposition for the circumscribed area of the home pasture and the home surroundings, and is a very persistent milker.

The advocates of all the breeds claim special points for them as dairy animals, and doubtless each breed has its place and profitable herds of all may easily be found. A dairy paper has tabulated the qualities of the dairy breeds, as demonstrated in public trials, which is condensed below. Flavor of dairy products depends on the feed of the cow, cleanliness in handling her products, and her health, and not on breed.

COMPARISON OF DAIRY BREEDS.

Size	Ability to Rustle	Early Maturity	Quantity of Milk	Color of Milk	Richness of Milk
Holstein	Ayrshire	Jersey	Holstein	Guernsey	Jersey
Ayrshire	Jersey	Guernsey	Ayrshire	Jersey	Guernsey
Guernsey	Guernsey	Ayrshire	Guernsey	Ayrshire	Ayrshire
Jersey	Holstein	Holstein	Jersey	Holstein	Holstein

Size is not an important consideration in the dairy cow, and great size is rather a detriment than otherwise in the family cow. Allowing four counts for first place in the other columns, three counts for second place, two counts for third, and one count for fourth, they sum up as follows: Jersey, 15; Guernsey, 14; Ayrshire, 13; Holstein, 8.

Although people usually like best the breed they have been most used to, the acknowledged beauty of the Jersey in conformation and coloring is an important addition to her other qualities, and warrants a column in any comparison table.

This shows a typical Guernsey cow of finest breed

A typical Jersey cow of pedigree, bred in America

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

UNITY IN INTERIOR DECORATION

By Harry Martin Yeomans

WHEN planning the furnishings for the house of moderate size, one is apt to select color schemes and furniture from the point of view of each room as a separate problem in itself, without reference to the relationship of all the rooms in the same house, one to the other. A small house loses a great deal of its charm when this feeling of unity is lacking, giving one the impression that the right hand did not let the left hand know what it was doing in the matter of furnishing, and that the whole scheme has not been controlled by one mind. Unity does not necessarily spell monotony, and although each room of a house should fulfill the purpose for which it is designed, it should also "feel at home" with its neighbor across the hall. One authority on interior decoration has gone so far as to say that all of the rooms on the same floor of a house should be so decorated that if the partitions should suddenly disappear, one large room would be left, the furnishings of which would blend into a harmonious whole. This may seem a bit far-fetched, but it illustrates the point. One may have an interest in different styles of decoration, but it is a dangerous procedure to attempt to incorporate them all in one house. Each may be good individually, but "Will they look well together?" is the question to be considered.

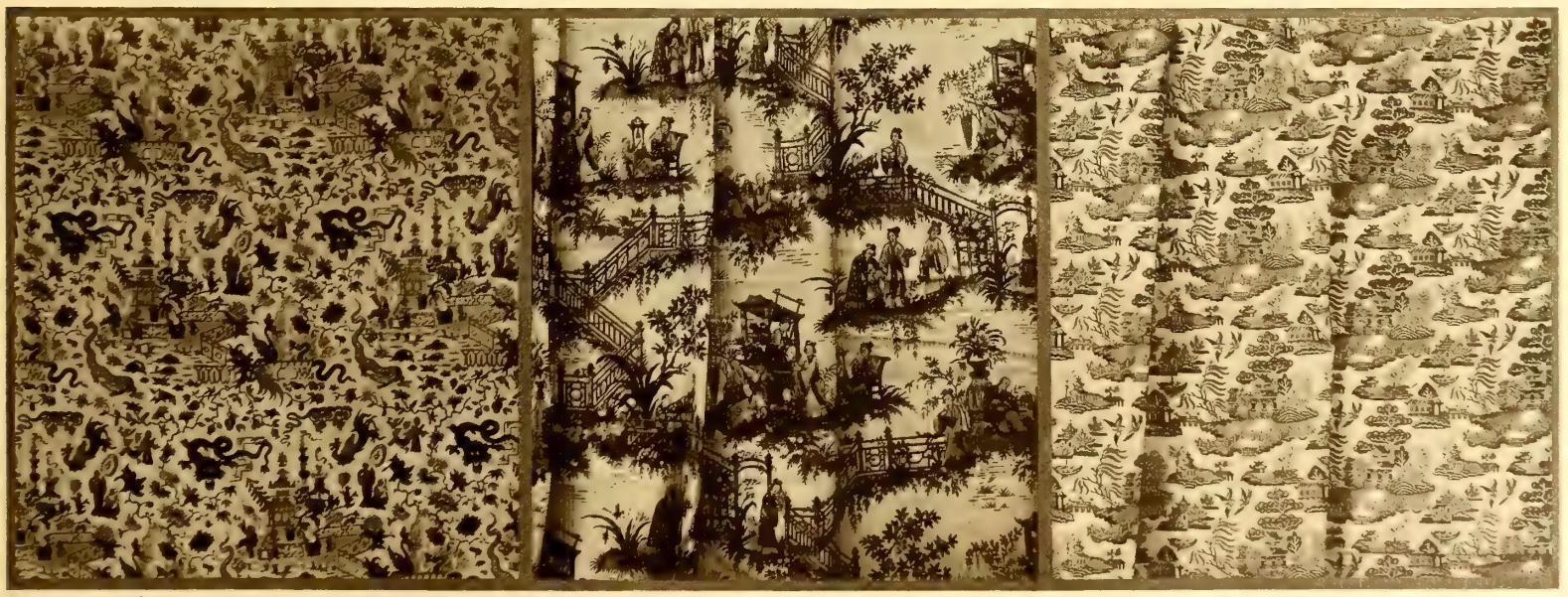
ONE style which is especially pleasing to the homemaker should be selected to form the keynote for the whole decorative scheme. If one is fond of white paint and bright, cheerful colors on the walls, the ever-pleasing Colonial suggests itself. Wall-paper and Colonial reproductions of all kinds can easily be obtained now, so that the Colonial spirit can be carried out from the knocker on the front door to the fragrant Bayberry dips in the brass candlesticks.

AGAIN, if one admires the grain of woods after they have been stained, waxed, or fumed, and strong but sober colors in wall coverings and in hangings, it is best to adopt a scheme which will enable one to have their attributes around and about. All of the so-called Mission styles of furniture—pieces built on severe lines—require strong backgrounds and woodwork trims finished in a dark wood stain. The beautiful grain of dull, dark wood will be found in all of the oak and walnut furniture patterned after Flemish and early English models, and one has endless beautiful reproductions of Jacobean and other periods to choose from. In a house to meet this phase one can build up a beautiful dining-room, for instance, around an oak gate-leg table and some Windsor chairs, all finished in dark brown stain.

BY furnishing a house with the idea of unity in mind, one is enabled to preserve relative values in colors and textures of wood and fabrics, so that one scheme blends into the other as progress is made from room to room. The house of limited extent will also appear more spacious when marked contrasts are avoided, and surely more homelike.

IN THE CHINESE TASTE

THERE was a great vogue for things Chinese during the last half of the eighteenth century, the Chinese influence making itself felt in the period of Louis XV, and Chippendale used Chinese frets and motifs in some of the furniture which he designed "in the Chinese taste." The lacquers were very popular, and pieces of furniture (especially chairs in the Queen Anne style) were covered with black lacquer having Chinese designs scattered over them. The black chintzes and other Chinese figured chintzes which accompanied this lacquered furniture have been revived in modern fabrics



Some examples of wall-paper and two-patterned fabrics in the Chinese style of covering most of the background, again becoming very popular

Black-and-gold and other patterns of brilliant colors in modern reproductions of old wall-papers and fabrics designed in the Chinese taste

and in wall-papers. The black chintzes are not exactly what their name implies, for they are not really black, but are gaily patterned in brilliant colors against black grounds. Large bunches of conventional flowers, parrots, pagodas and branches of trees, all treated in the Chinese style, are usually the decoration. The colors are all very vivid and the designs are well distributed, so as to cover up most of the background. These chintzes are very attractive in themselves when properly employed. As black-grounded chintzes were inspired by the black lacquers and porcelains, having a black background, and their characteristics of design being essentially Chinese, these chintzes would look best in a room where the Chinese note is accentuated. A room papered in one of the Chinese figured papers, harmonizing with the hangings and upholstery, is very attractive, and the same sort of papers and fabrics look especially well in a room having brown-stained furniture of the cottage type, or with willow-ware and the Singalese and Chinese hour-glass chairs now imported and for sale in eastern shops. Chinese embroideries, or even Japanese prints framed in narrow, flat, black moldings, and Geisha lampshades, with their black lacquered frames, help to tie the color scheme of such a room together. Such a treatment is suitable for a room having a great deal of sunlight.

A LIBRARY LIVING-ROOM

AN interesting arrangement for the living-room was seen in a recently completed small house in the suburbs of Boston. The owner desired a large living-room, so instead of dividing the lower floor west of the hall into two rooms, as originally planned, he decided to leave it in one spacious room running the entire depth of the house. The French windows at the rear opened onto a brick-paved terrace, and from the living-room one could catch pleasant vistas of an old-fashioned garden beyond the terrace.

ALTHOUGH there was no actual line of demarcation visible, it was decided to have the end of the room, beyond the chimney-breast and facing on the terrace, do duty as a library, while the remainder and larger portion would be the family sitting-room. A wainscoting of simple panels extended around the room, with the exception of the spaces at the library end, which were filled with built-in bookshelves. The woodwork was stained a dark rich brown, and above the wainscoting the wall was covered with a neutral orange-toned paper, the tone of which varied to a slight degree, the paper having the appearance of leather, forming a most excellent background.

Light ground chintz in the Chinese style

THE furniture, of dark oak, was built on straightforward lines and resembled the lighter Mission furniture to a certain extent. The legs and main structural parts of the furniture had been turned, which eliminated the extreme angularity and heaviness which is characteristic of most Mission furniture, and the pieces had the appearance of some of the old English furniture of turned wood.

PAPERING AND FURNISHING A COLONIAL DINING-ROOM

A READER requests a suggestion for papering a large dining-room having ivory-white woodwork, and asks what furniture would look well therein. A gray striped paper or a plain gray oatmeal paper will combine beautifully with the ivory-white paint. As for the furniture, reproductions in mahogany of a table and chairs after the designs of Hepplewhite are excellent for the dining-room of a house which is being carried out in the Colonial spirit. A built-in china-closet could take the place of a sideboard, and a little servingtable of the same sttyle used. One sees these built-in closets in a great many Colonial houses throughout the country.

Over-curtains of yellow armure will go well with the gray paper, if one thinks that it is desirable to have draperies in such a room, other than the pane curtains.

For lighting purposes simple brass sidelights are suggested, in the form of electric candles with Empire shades. These, together with candlesticks on the table, will light a dining-room of this description beautifully, to which could be added a central light having a yellow silk shade, if desired.

SUGGESTIONS FOR REPAPERING A HALLWAY

ANOTHER correspondent wishes advice in the matter of repapering a hallway. From the sample of paper sent and a memorandum of the hall's dimensions, the trouble with the old scheme of papering is instantly apparent. The hall is too small to stand a paper having such large figures. A paper with a large, bold pattern always has a tendency to make a room appear smaller, and this undoubtedly has been the case in this instance. As this hall is evidently merely a passageway and entry to the house, and as the correspondent desires one-tone effects, one heartily recommends adopting a one-tone effect in this hall, also in the other rooms on the lower floor, for in this way the effect of more space will be obtained, as one-tone papers will make your rooms appear larger. Should the correspondent decide to repaper the hall, we advise using a plain light tan, or a two-toned striped tan-colored paper.

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

WITH THE NEW YEAR

MAY the New Year be a happy circlet of joyous days to bind the forthcoming months upon the future's memory. It almost seems as though old earth has left the landscape bereft of Summer's green things recurrently to teach us to hold gratitude in our hearts toward Mother Nature, when she shall come again to shower upon us from her bounty the flowers of Springtime, the foliage of Summer, and the fruits of Autumn. This month will see Yuletide past and the taking down of all the holiday greens that have decked our walls, following the old custom built upon the superstition that neither a bit of Holly nor of Mistletoe must be permitted to remain in the house after Twelfth Night.

THERE is little to do in the actual garden in northern latitudes this month beyond pruning grapes, peach trees, currants, and some other small fruits. But indoors, one will find plenty of gardening things to keep his interest fresh in matters of this sort. There is next Summer's garden to be thought about even now, when one has time to plan for it, and, having learned the valuable lessons the experience of the season past has taught, to profit by applying the garden knowledge he has attained toward a better garden the coming season. Indeed, being determined to have the coming garden surpass the one that vanished with the approach of Jack Frost is a resolution as commendable as any on the New Year's list. One may walk over the frozen ground now and decide where the planting shall be placed when the Spring months arrive. Furthermore, the garden planner can lay out his projected garden upon paper, and with the help of a careful study of the catalogues of seedsmen and nurserymen determine in advance just what sort of a garden he will come to have. Like everything else, a garden should be a matter for careful consideration, and if one takes the time to decide in January what he will begin to carry out in April and May, we may feel pretty certain that a garden so planned will prove much more attractive, more economic of time, and also more easily constructed than one devised upon the spur of the ever-fleeting moment.

A delightful garden seat and birdhouse combined. Such features as this, one can now be planning for next Summer's garden

THEN some stormy night, when the Winter winds are almost shaking the house like the breath of invisible Titans, it will seem nice to settle down in some snug corner to read the things concerning the garden one has not had time to look up before. There will be the study of soils, fertilizers, fruit raising, hotbed arrangement—in fact, almost a thousand and one things worth taking the time now to learn about if one would hope to have a beautiful garden in which to take pride and pleasure when the Goddess Flora once again deigns to visit the land of mortals.

THE amateur gardener who has built himself a small greenhouse will be taking much interest in it at this time. He should not forget that Pansies, Petunias, Verbenas, Daisies, Forget-Me-Nots, and many other seeds may be started in the greenhouse at this time. In the old greenhouse, the shelves and plant-benches must be looked after, and if these are found to be rotting they must be sprayed with copper sulphate and whitewashed.

ON looking forth over the snow-covered lawn, the homemaker will find the eye resting with relief upon the brown stems of shrub and tree-like lacey patterns. The home landscape would be dreary enough in Winter-time without just such contrasting notes to lend it color, and, bearing that in mind, one should resolve to plant Evergreens and shrubs for just such effects where now they are lacking, in order to make the prospect more interesting when another January shall have come around.

THE CYCLAMEN

THERE is scarcely a lovelier flower for indoors than the Cyclamen. Those who have traveled in foreign lands will recall the exquisitely fragrant and waxen-like blossoms of this dainty plant in its native haunts of the mountain lands of Greece, of Sicily, and its abundant growth on the mountainous island of Capri, in the Bay of Naples, forming one of the pleasantest memories of an Italian Springtime. In the Isle of Wight it is a favorite plant for indoors, and in America we are coming to appreciate its beauty more and more every year and to give it a prominent place in our windows at mid-Winter. The various sorts of Cyclamen (*Cyclamen persicum*) are usually raised from seed sown in Autumn in a heated greenhouse to produce corms (as the roots are called) later. These corms may be

purchased from nurserymen, but this must be done in the Summer or Autumn season. In mid-Winter the grown plants, budded or in full bloom, may be obtained from any florist. However, if one wishes to try his hand at raising the plants from the start, seeds may be purchased and started in hotbeds or indoors in flats from January to the end of February. Cyclamen seeds should be planted in the soil at a depth of a little over twice their length, and they must be kept moist continually, though never left wet or soaking. Probably it will take the seeds three or four weeks to germinate. By the end of May the young plants may be removed to cold-frames. An eastern location is best for them. When they have been set out ten inches apart (the roots must be handled tenderly in the process) and have obtained some growth, little trenches should be made between the plants to receive, weekly, liquid manure. Then in the late Autumn they may be lifted and potted in six-inch pots, with a potting soil of loam and well-rotted manure. An east window exposure is best for them indoors, and the temperature should be cool and even where they are placed, and the plants sprayed daily. If one wishes to save the corms of plants that have already been in blossom, watering should be gradually lessened from day to day, until at last only enough is allowed to keep the roots from becoming absolutely dry. Then keep the corms cool during the Summer, turning them in the sandbox from side to side, never allowing them to dry out completely. They will be ready to set out in the fall. Mice are very fond of the Cyclamen corms, and care must be taken in storing these. The writer does not know if attention has been called to the fact that as soon as the blossoms have faded the stems of the Cyclamen begin to curl downward, burying the little seed pod in the soil near the base of the plant. This seems one of nature's ingenious devices for keeping the seeds from birds. Among the recommended varieties of the Cyclamen are White Butterfly and Snowflake (white), Princess May (pink), Bush Hill Pioneer (various colors),

An idea for the garden from foreign shores. Decorative plant-sticks for children's gardens and for use as supports in potted house-plants

Purple King (crimson), Salmon King (salmon), and Rococo, which has beautifully fringed flowers. One hundred seeds will cost from one to two and one half dollars, according to varieties, when purchased from any reliable seedman.

Highly recommended pink and white varieties of the Cyclamen, one of the most attractive and exquisitely scented flowering plants for indoors

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

CONCERNING THE BREAKFAST

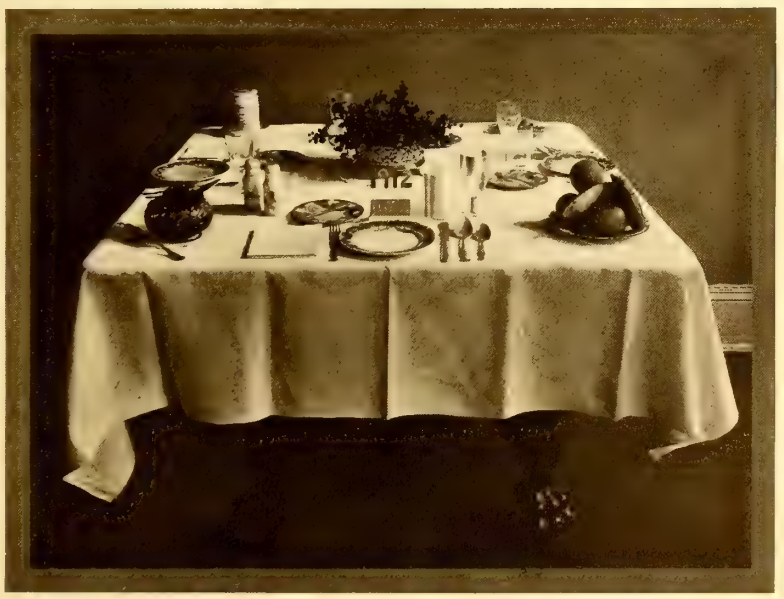
By Elizabeth Atwood

Photographs by Jessie Tarbox Beals and others

FROM various causes the American breakfast has become a somewhat haphazard meal. We have acquired the habit of late hours in city living, which has crept into country living as well, and eleven o'clock for retiring is no longer considered very late, as it was two generations ago. Under the conditions of the trend of habits in our civilization it is small wonder that breakfast becomes a lively scrabble. This is all wrong. Breakfast should be a meal where the family come together for inspiration for the day. Commuters form a large portion of our city workers, and the conclusion one comes to most naturally is this—they would not be commuters if they did not have children to be benefitted by a life in the country.

NOW breakfast is the only meal where the family, as a whole, can come together. Late dinners being necessary, the young children are in bed, or should be at such an hour. Breakfast-time is the only part of the day, for six days of the week, when the father can become really acquainted with these young members of his household. As for families where there are no children—well, the same rule holds good. I have always had a feeling that the man who takes his coffee alone has a pretty poor start for his day's work. Even the guests under my roof came under this influence of breakfasting together. Fifteen minutes or half an hour do not make a large difference in one's rest, but utilized in preparing for the family reunion in the morning, the time means just the difference between a jolly, sociable meal to put the traveler on his way, or a scrappy, one-at-a-time kind of an enforced "feed." Our English homemakers surely felt this regard for the breakfast-time, for they always had a breakfast-room, where a more intimate and social meal could be enjoyed than in the more formal dining-room.

THE Continental "rolls and coffee" have invaded this country, and frequently they are served to one in bed, or in the chamber. This is the case in homes where corresponding luxury does not exist. The least that a housewife can do is to be up and see that the breakfast-time is made sweet and cheerful; to see that the meal is served neatly; see that the "rolls and coffee" are served hot. The guests should feel this same responsibility to their host, and in this way show their appreciation of his hospitality. I know this can be done, for I have lived it. We were an hour's ride from the city and a mile from the station, with few trains. It was necessary to have breakfast early, and we were always ready to sit down together when the family numbered a baker's dozen. Even people of lazy habits fell in line—and enjoyed it.

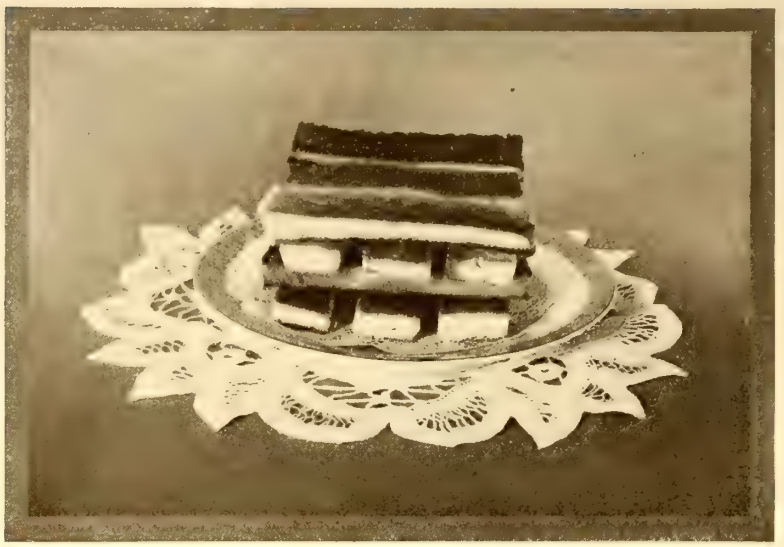


The well-laid table of an inviting breakfast suggests the day's start in the right direction

HAVING settled that all people under one roof should meet at breakfast in the morning, the next thing is that the table and food be as carefully prepared as the more formal dinner. There are many homes of fair exterior where dinners are given with exquisite care and taste, and yet where breakfast is served in "any old way"—sometimes even in the kitchen. This may help the housewife in the saving of steps, but she loses more than she gains. If there is a maid, the housewife should be on hand to make sure that whatever is served is served in the best possible manner. How can a maid be expected to have this interest if the housewife does not?

BREAKFAST is now a lighter meal than we used to make it. Cereals have become so common that all can have them. It is within my recollection that we had to go to a druggist for oatmeal, used only in cases of illness, and then the price was much more than it is now. Few young cooks realize that there is an art in cooking even oatmeal. It is not all when you mix it with water and leave it in the double-boiler to do the rest. On your package you are told to mix it in boiling water, salted to taste. Who knows how salted water should taste? And who cares to taste uncooked porridge? This is a safe rule to go by: To one cup of oatmeal, add two and a quarter cups of hot water, in which a small teaspoon of salt has been dissolved. You are told that you do not need to stir it. I think you do. At least I find it necessary to do so. You are told that twenty-five minutes is enough to cook it; I do not think less than an hour is enough. If you are not an early riser, cook your oatmeal the afternoon before and leave it in the double-boiler; then a few minutes in the morning will heat it for serving, or a thorough soaking over night will materially reduce the time required for boiling it.

THE same is true of cornmeal. "Hasty pudding," as it is called, may have had its name given it in sarcasm, for cornmeal which has been cooked an hour is infinitely better than when cooked only half an hour. How many know the joy of eating fried cornmeal mush? Pack firmly in a bowl the mush left from breakfast. For the next morning, slice, dip in egg and then in breadcrumbs, or dip in flour; then fry in hot fat, being sure to have a generous supply of the fat in the griddle. Served with maple syrup, or with crispy browned bacon (not burned on the edges) this is a delicious breakfast dish.



Toast arranged as here shown will never become soggy and heavy and an unfit adjunct to the breakfast

RICE is another thing which many fail to cook properly, and is a fine cereal for breakfast. For many years this has been our Sunday morning cereal, served with maple syrup, and two daughters with homes of their own are now serving it to their children. Take about a gallon of water, or any large kettle nearly full; put in a heaping tablespoon of salt. When this is boiling madly, pour in slowly one or two cups of rice, according to your needs. Keep stirring until boiling begins again. The rapid boiling keeps the kernels of rice moving, and the horrid mushiness so often found in rice is avoided. After twenty minutes of rapid boiling (not twenty minutes from the time you put the rice on) drain dry in a coarse sieve and put back in kettle in a hot place, where it should steam for five minutes. Each kernel will be found perfect, and the whole will be puffy, instead of mush-like. Rice griddle-cakes, if made right and then cooked properly, are very delicious. Take one cup of rice, one cup of milk, one heaping teaspoon of baking powder, half a teaspoon of salt, and flour enough to make a stiff batter. Try one cake, and add flour if too thin, or milk if too thick. Be sure to have the fat quite deep, for rice cakes take up more fat than any other.

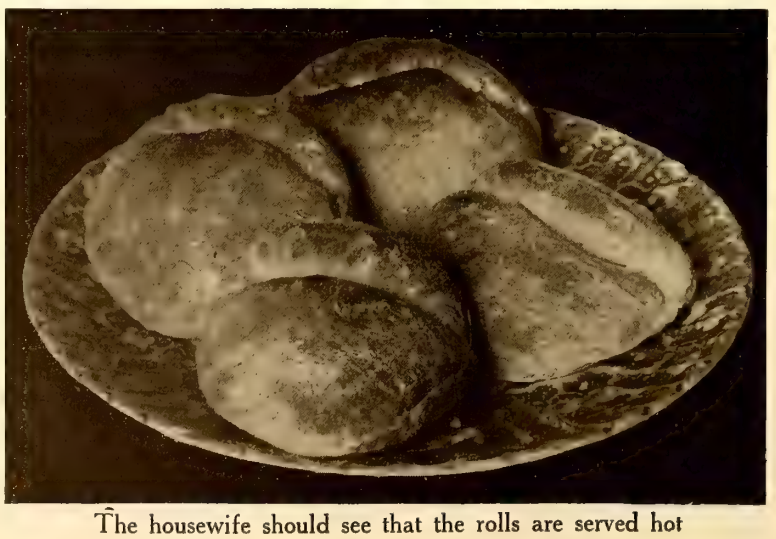
I WONDER if many of our younger housewives realize the difference between the old-time buckwheat cakes and this ready-to-cook buckwheat flour? Just try this rule once to see how your grandmother used to make them. I believe you will think them worth the extra trouble. Take two cups of buckwheat flour, half a cake of compressed yeast, a small teaspoonful of salt, half a cup of cornmeal, and two tablespoonfuls of molasses. Use enough tepid water to make a thin batter; beat briskly, and put in a warm place for the night. A crock is thought to be the best thing to mix this batter in. In the morning, put in a quarter of a teaspoon of soda. This is the season when these fine cakes are supposed to be the least harmful. I do not share in the common fear with regard to them. Moderation, coupled with good cheer, are all that is needed. If one is sour and disagreeable, and in silence eats fifteen of these cakes, he ought to pay the penalty; but he ought not to blame the cakes.

DO you realize, you housewife, how few cooks understand the art of making good toast? A bit of bread burned on the edges and pale in the center, with a dab of butter here and there, which melts through to the other side, leaving the intervening places dry, is not good toast. I have never been able to do many things while making toast without the toast suffering. I have found it a good plan to have all the rest of the breakfast ready before starting on the toast; then, with close attention, constantly turning and changing, a delicate, brown, crisp slice of toast is the result. I prefer to have all the slices browned before I begin to butter them, and I think it best to have the butter somewhat soft. I always pile the toast, after it is buttered, in log-cabin style, for this will prevent it steaming and thus becoming soft. Keep the toast in the oven till ready to serve, and a fine crisp article will be the result.

THERE are so many ways of making coffee that it is hard to decide which way is the best. I, belonging as I do to the old-fashioned class of cooks, prefer the good old way, made with an egg. In these days of exorbitant prices, I cannot always do this. However, this I can and always do. I save all my eggshells, I put the shells of two eggs into the coffee-pot with four tablespoons of coffee. On this I put four cups of cold water, and allow this to stand for about fifteen minutes, after which I place it on the hot part of the stove to boil up quickly; then it is set back where it will keep hot till served. It is always clear. When my eggshells give out I use my percolator, and notice the loss in flavor at once, although the same coffee is used in both cases.

GREAT care should always be used to have the fruit served attractively. Always avoid mussiness of every kind, and try to vary this part of your breakfast menu. Cooked fruits, particularly apples, are always good, and are even preferred by many. A rich, juicy green apple, for instance, with its core taken out and the hollow filled with sugar, a small pinch of salt to each apple, and a little cinnamon sifted over all, is a fine dish. I always put a little water in the pan, and a luscious syrup is formed, which does away with the need of cream.

THE light breakfast of fruit, cereal, and rolls or toast with coffee is certainly a boon to the housewife who does her own work. I am not an advocate of those uncooked cereals, or, rather, the cereals which only need to be put in the oven for a few minutes. I think the freshly-cooked cereal will generally tempt even a jaded appetite. An egg cooked as a person prefers, or an omlet—these furnish "staying" qualities, needed sometimes by the active workers of a household.



The housewife should see that the rolls are served hot

BUT the thing most needed is the jollity, the comradeship, too often lost. In this beginning of the new year let one of the resolutions be to have a care of other members of the household, and by a gracious presence bring more joy in the family.

PAPER-BAG COOKERY OF YESTERDAY

THE using of paper bags for the cooking of foods is not a new idea by any means, although the making of bags for this special purpose may be. More than fifty years ago the reliable cookbook of that day gives this suggestion in cooking a haunch of venison: "Lay over the fat a large sheet of brown paper, well buttered and securely tied on with twine. Place it before a good, steady fire, and let it roast from three to four hours, according to its size. After roasting well for three hours, remove the covering of paper and baste the meat well all over."

For more than twenty years, when roasting a fowl of doubtful years, I have put it in a common paper bag for the first part of the cooking. When the bag is well tied at the opening, it is easy to understand that a perfect steaming process takes place, which will convert the toughest fowl into a tender, delicious bird. All the flavor is kept in, and also the flavor of the dressing penetrates the flesh of the fowl under this process, more completely than when left open in a hot oven during the time required to cook the fowl ordinarily.

KITCHEN LITERATURE

By ELIZABETH ATWOOD

ONLY those who are interested in the subject have any idea of how many books on cooking are published, and, also, how many troubled housekeepers have absolutely no kitchen literature in their homes. Our grandmothers always had their "receipt-books," in which the well-tried recipes of their friends were safely kept; but they were vitally interested in the results obtained, and personally superintended the process, if they did not do the work.

More than a hundred years ago printed cookbooks were started. Fifty-seven years ago, T. B. Peterson, then running a magazine for women, published in Philadelphia "Miss Leslie's New Cookery Book." One newspaper of the day said: "To the young wife about to enter upon the untried scenes of catering for a family, this book may be termed a blessing." Miss Leslie must have catered to the well-to-do only, for on the very first page she advises hunting up poor people—"people to whom their broken victuals would be acceptable." How very different the viewpoint is now! More and more writers of cookbooks are realizing the need of teaching young housekeepers how to utilize leftovers, and how to present them to the family in attractive form.

Specializing has entered the field, and we have books of a thousand salads, a thousand soups, etc. What a boon even to the experienced housekeeper are these classified suggestions! Harper's "Cook-Book Encyclopaedia" is another truly helpful book, to say nothing of all the works of our well-known cooks, who have become writers, and in this way made it possible for all to learn them. What is not so widely known is the fact that every language and almost every dialect has a cookbook of its own. either in the original or translated. How many kitchens are equipped with these helps?

The larger number of these many cookbooks are found in homes where "competent" help may be employed; help who are capable of getting up a fine meal and who understand the principles of cookery. But what about the vast number of "green" helpers? These fall to the share of those who cannot afford the more costly "competents," who often are green only in lack of knowledge of our language and customs.

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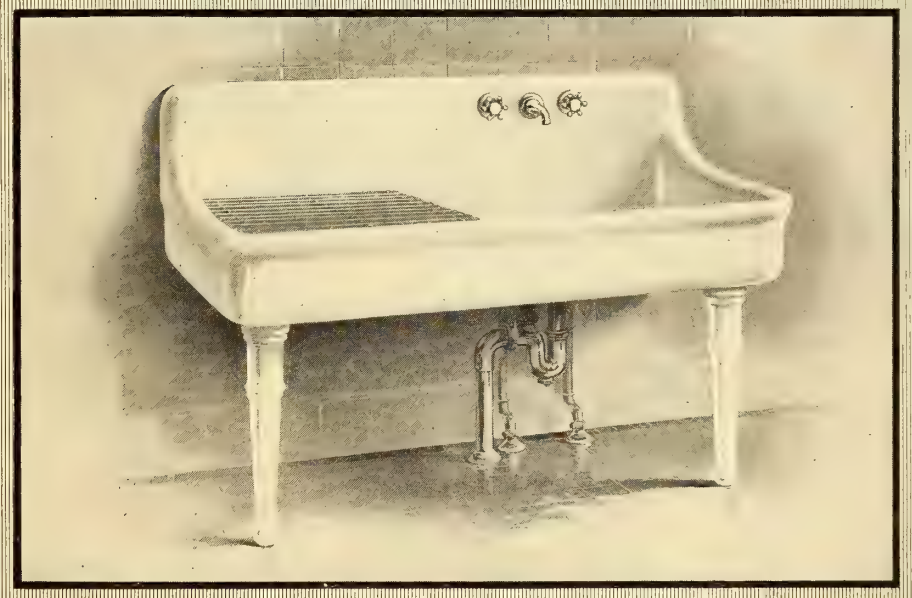

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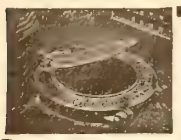

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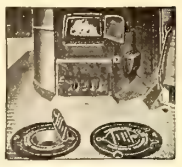

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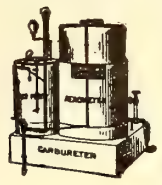

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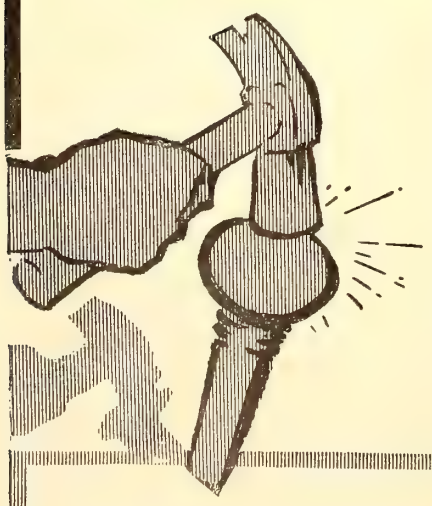

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This Special Building Number is but the first of six issues that you cannot possibly afford to be without. In April appears the Gardening Guide, another Special Issue, with the aid of which your next year's garden cannot fail. Then in June, the Annual Summer Home Number comes to you—an inspiring revelation of what can be done in the building, equipment and planting of a bungalow, shack or other type of temporary home in which to spend the summer or vacation days. To make it worth your while to subscribe now, we want to send you

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I really and truly believe that cookbooks, and other literature which deals with the housework, should be a part of the kitchen equipment, as much as the dishpan or broiler. This would help in more ways than one. Nearly every woman loves to look over a cookbook, and the one who has the meals to prepare enjoys it most of all—needs it most of all.

Even the expert cook who must keep help would find it easier if the cookbook were there on the kitchen shelf, for the maid to prod her memory with. And how much misery might be saved if the young housekeeper would regularly study the cookbook with her maid! This surely should be a common interest, and to work together would be a great comfort to maid and mistress alike. Both have much to learn in most instances, and here would be the word of authority.

Most maids would like to know more than they do of the finer parts of cookery, if for no better reason than to be worth more wages, though a large number wish to know how for the pleasure of knowing. How are they to become more competent unless their employer is willing to help them along? Here comes in the need of kitchen literature. If a Pole, Swede, German, or Italian is in the kitchen, what a joy it would be, what a help, to have a cookbook in her own language!

I had a Finnish maid brought to me from the steamer. She was bright, big and strong, and always very willing; but not one word of our language did she know. In a few days she had written out quite a vocabulary of the kitchen furnishings, and soon I was able to tell her the ingredients of cake and other things. She wrote these down in her language, and soon had a book of recipes. In those days I could not have found a cookbook in her language. Now it is different, for I think I am right in saying that cookbooks are published in nearly forty languages.

If mistresses would only help their maids to help themselves, and furnish stimulating reading along their lines, much of the servant problem would be solved. Domestic science may in this way be brought into our homes, and not kept for places of learning.

VACANT LOT GARDENING

THE American Civic Association is concerning itself with a projected "Vacant-Lot Gardens" campaign, that will tend, it is hoped, to bring about civic betterment through the cultivation and beautification of vacant lots in cities. In this connection, it is interesting to note the progress made by the Garden Lot Club, of Minneapolis, Minnesota.

In 1911 this club had planted in vegetables and flowers 360 vacant lots, or approximately 2,225,000 square feet, of which 2,000,000 square feet were planted to vegetables. The city was divided into six districts, about sixty gardens to a district, and each district was in charge of an assistant gardener, furnished by the Minnesota Farm School. Each individual having a vacant lot garden thus received careful instruction in gardening. An idea of the extent of the work will be offered in a statement showing that the club gave out 28,000 cabbage and tomato plants on May 25, and there also were given out on May 11, 22,000 packages of nasturtium seeds. So great was the stimulus to gardening in the city that the stores in the same season sold 40,000 packages of nasturtium seeds, and it was estimated that fully 25,000 to 30,000 homes

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were decorated with these plants, most of which were in bloom by July 1. With the Garden Club acting as intermediary, every vacant lot on Hennepin Avenue, one of the principal thoroughfares of Minneapolis, was cleaned and planted to grass and flowers. About 600 vacant lots in other parts of the city were cleared of rubbish.

The total cost of all the cleaning, seeds, instruction, supervision and machinery was $4,000, while, with the experience gained, it is said, the same work could be accomplished another season for about $1,800.

MARKET-GARDENING FOR TWO

By CRAIG S. THOMS

TO carry on garden work for market trade is comparatively easy. One simply raises all he can of the vegetables that will sell at the greatest profit. Gardening is complicated when one does not desire to sell his yield and has only two mouths to feed, or to waste vegetables, or to feed all his neighbors, or to let any ground go to waste, but does desire to have "garden stuff" on his table all the year round.

I have been wrestling with the problem of gardening for two on a garden plot of about fifty by a hundred feet for several years, and possibly my experience may be of interest, at least to newly-wedded couples. Many a man, when beginning housekeeping, feels the necessity of having a garden to supply his table, and also that his work in cultivating the ground is in a way equivalent to his wife's performance of household duties.

I begin each year, about January first, by holding a detailed and exhaustive family conference on the subject of seeds, and then immediately send to some reliable house for a full supply, so that there will be no delay in planting on account of the rush of Spring orders.

In order to raise the utmost from the space available, I next lay out my garden plot, assigning to each vegetable its place and amount of ground, using as a basis those kinds that take longest to mature, such as tomatoes, potatoes, corn, celery, carrots, parsnips, onions, etc. When this has been done, I plan how many of the short-season vegetables can be raised on the same ground that has been selected. For example, one can raise all his early radishes on the space awarded to tomatoes. Last year I matured three plantings of the Early French Breakfast radishes before the tomato plants were large enough to need the ground. Early lettuce may be raised on tomato ground in the same way, and even the first transplanting of celery. The space between tomato rows is necessarily wide, and the plants do not begin to spread much until radishes and lettuce are out of the way and the small celery plants have been removed to another place.

The "other place" for my celery I arrange as follows: On the east side of my garden space I run four rows of sweet corn north and south. In the middle of these rows, space is left for a fifth row, but instead of planting corn I there put in my early peas. By the time the peas are off the ground the corn is so tall that I can dig my celery trench where the row of peas stood, and scatter the soil among the two rows of corn on either side. In the trench the celery is planted in a double row in the temporary half-shade of the corn, although, since the rows run north and south, the celery receives the benefit of the full sunlight for several hours each day, and, since the row of corn on either side nearest to the trench is of the earliest variety, and therefore short, the celery enjoys a sort of half-shaded sun-

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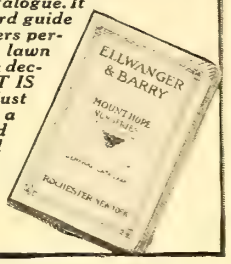

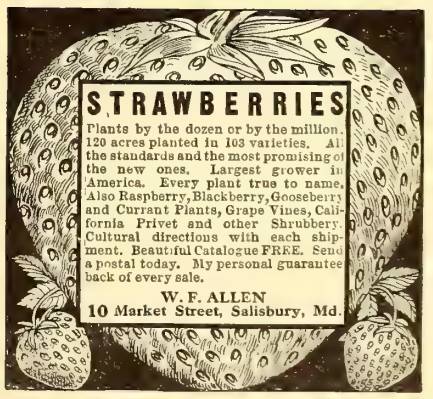

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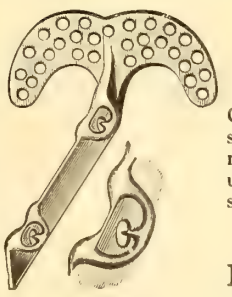

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Compared to the Bell Telephone system of to-day the visual telegraph system of Napoleon's time seems a crude makeshift. It could not be used at night nor in thick weather. It was expensive in construction and operation, considering that it was maintained solely for military purposes.

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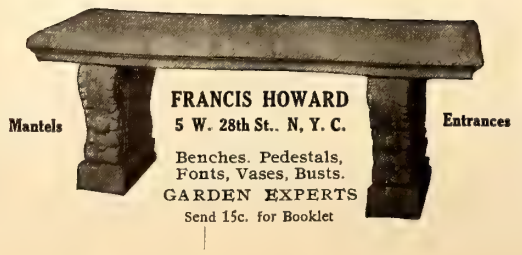

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light the rest of the time. This is tempering the wind to the shorn lamb, for the partial shade shields the newly transplanted celery until it gets a good start, while it is not long until the early corn is ready for use and the stalks, of course, are cut down to give the celery the space. The purpose of this arrangement, however, is the economy of space which comes from being able to throw the soil from the trench among the rows of corn, and, when the celery is ready for blanching, being able to gather it again, and indeed all the soil from the space which the corn rows occupied, to hill up the celery. In a small garden, where every inch of space is valuable, one of the most difficult things is to get soil enough for blanching purposes. Half of my celery is of the Self-Blanching and half of the Giant Paschal variety. The former, being short and stocky, is easiest covered for winter use, while the latter, being a rapid grower, may by early hilling be made soonest ready for the table.

The first year that I had a garden I planted peas and string beans in the spring, only to find that they matured about the same time, and that we could not use both; in fact, that we did not care for the beans while the more delicious peas were available. I do not plant my beans now until I have taken off my last planting of peas. We find them just as good in the autumn as in the spring, and very welcome for fall use. I stick in a few hills of beans in any vacant spaces that I find in the garden after July, as for example where a tomato vine has been killed, or along the edges of walks, or the margins of my potato patch.

We like to use beets when they are young and tender. Last year I raised two crops from the same row, and both the early and the late planting had ample time to mature. If beets are canned for winter use it is doubtless best to can from the late crop, as the risk from the heat is not so great. A year ago I stored beets for winter use, packing them in sand in the cellar, but they kept too well, becoming as hard as rocks, so that the hardness could not be adequately reduced by boiling. This winter we are trying a new experiment, that of not pulling up the beets, but, after the tops have been somewhat frozen, covering them with leaves where they stand. I found that in December, and there had been some severe weather, that my beets, as they were pulled and prepared, half a dozen at a time, were as fine as at any season of the year.

Of onions we are very fond, but instead of planting many onion sets, as at first, I have learned to have a corner with winter onions for early use, and then to sow the onion seeds with a view to thinning out very freely for the table. There is no delicacy in the onion line quite equal to the tender onions pulled up in thinning an onion bed. I go over my small bed many times, aiming to do the thinning so as to keep the growing onions from crowding, and in the season we are never without all the green onions we can eat.

Two bushels of potatoes last us a year, but we always plant an early variety, not only because new potatoes are expensive, but also because the vines die down early enough so that we can utilize the ground between the rows for some fall crop.

One important part of my garden is the strawberry bed. We like the berries right from the plants, but they ripen too rapidly for us, and so I have learned to uncover only half of the bed at a time in the spring, leaving the other half to be held back by its covering as long as I dare, and thus the fruit season is prolonged.

At first we found it difficult to use a whole

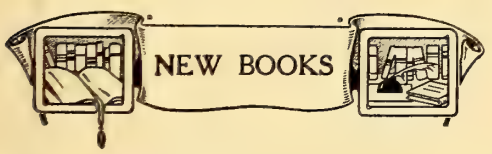
cauliflower, of which we are very fond, but we have solved the difficulty by simply cutting from the head of the cauliflower as much as we need for a meal, while the rest is left to grow. When eight or ten cauliflowers all head at the same time, two people find great embarrassment amidst such bounty, but this trouble was overcome last year by distributing the plants in the garden so that they received unequal amounts of shade from nearby trees. Those that have the most shade are slowest in maturing. Last year some heads were fully matured, or rather, ready for table use, before the more shaded heads were formed; but all came on nicely, and we had the finest of cauliflowers until frost.

With cabbage plants we have found the same difficulty. A large head is too much for two people to use even at several meals, and one does not like to feel that it is necessary to eat food to save it from being wasted. Taking my cue from the cauliflower, I tried cutting one head in half, cutting it perpendicularly, and leaving one half on the steam. But the exposed face kept on growing, and the white leaves turned green. Next year I shall try removing the outer leaves, throwing away the green ones and using the white ones freely. The exposed white leaves, of course, will turn green, but the head will doubtless keep on growing, and I should not be surprised if it kept the heads from bursting, as several did this year.

A JAPANESE INNOVATION IN MANUFACTURED MILK

THE Japanese retain their native subtle ingenuity, and under the invasion of Western ideas this quality, combined with what one might call Yankee shrewdness, does not leave that nation lacking in ability to keep up with modern inventive resourcefulness. For instance, cows are not numerous in Japan, but the Japanese are fond of milk, and to meet this demand in the face of natural shortage they long ago put their wits to work and evolved a product that the average person cannot distinguish from the regular dairy article.

The artificial milk is derived from the soja bean. The beans are first soaked, then boiled in water. Presently the liquid turns white; sugar and phosphate of potash in proper quantities are added, and the boiling continued until a substance the thickness of molasses is obtained. This fluid corresponds very accurately with ordinary condensed milk, and when water is added cannot be told from fresh milk.



MYTHS AND LEGENDS OF FLOWERS, TREES AND PLANTS. By Charles N. Skinner. Philadelphia and London: J. B. Lippincott & Company, 1911. Cloth, gilt top; 12mo.; illustrated; 302 pages. Price, $1.50 net.

The love of flowers and trees, and the dread of some of them, is no new thing, but has existed in all ages and climes. Flowers have therefore gathered about them many stories and have inspired many more. The love of them would seem to be incomplete without a knowledge of the delightful legends of such absorbing interest in themselves and their associations and heretofore so difficult to locate in history and literature. Mr. Skinner has gathered them together in

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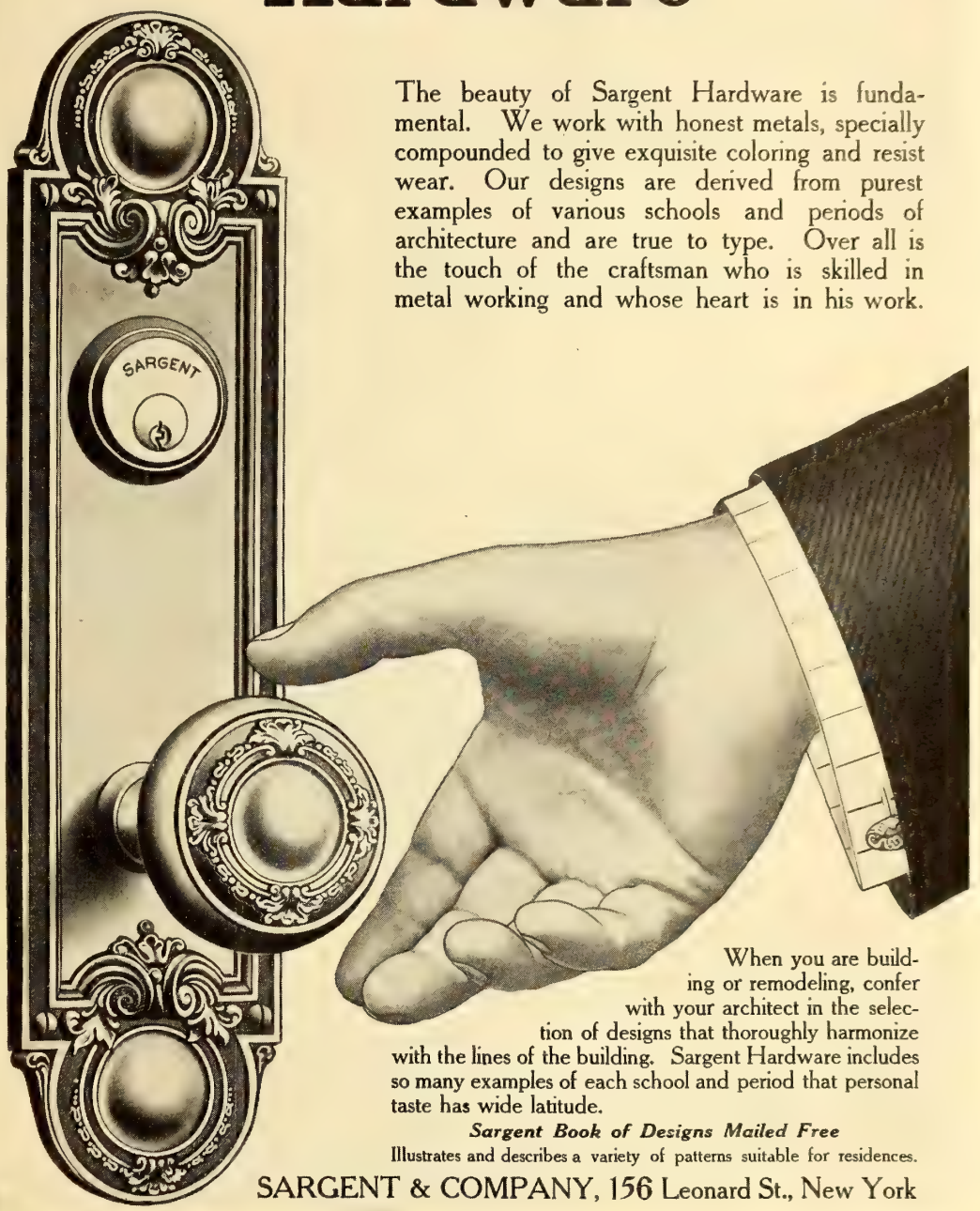

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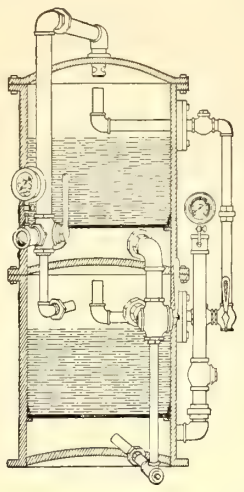

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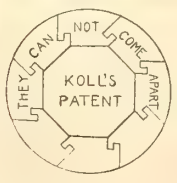

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the present volume. Although this volume has a table of contents, one regrets that it was not supplied with an index. Nothing is so disturbing to the student as a volume of this sort which is not fully and carefully indexed.

GARAGES, COUNTRY AND SUBURBAN. New York: The American Architect, 1911. 4to; 80 illustrations. Price, $4.00.

He must be hard to please whose eye is not gratified by the garages shown in the beautiful half-tone reproductions of this album. Even Cairo, Egypt, has yielded the publishers an artistic and satisfying model, while America has apparently been ransacked for buildings that delight the artistic sense and meet the most exacting practical requirements. The plans of most of these are included, so that much help is afforded the man who is deciding on the structural features of a new garage. Some twenty preliminary pages of text take under consideration the essentials of construction and equipment, including the safe handling and storage of oils.

THE AMERICAN ARTISAN WINDOW DISPLAY MANUAL. Chicago: Daniel Stern, 1911. 8vo; 271 pp.; illustrated.

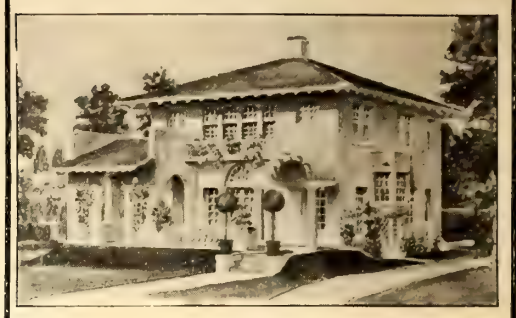
The suggestions and arrangements offered are confined to hardware. It is a comparatively easy matter to place in a shop window some curiosity or design that will attract a crowd. It is quite another matter to make the window a "silent salesman" that will bring patronage to the proprietor. The writer has endeavored to keep the more important purpose to the fore. Several of the illustrations show prize-winning designs. Others specialize on such goods as nickel-plated ware, fishing tackle, tools and sporting goods. Still others show attractive dressings for Christmas, New Year's and Thanksgiving, while a Washington's Birthday display utilizes the episode of the boy and the cherry tree to call attention to hatchets. The manual will be particularly helpful to retail dealers in the smaller towns who are sometimes at a loss to know just how to dress their windows to the best advantage.

ENGINEERING OF TO-DAY. By Thomas W. Corbin. Philadelphia: J. B. Lippincott Company, 1911. 8vo; 367 pp.; 39 illustrations and diagrams. Price, $1.50 net.

The man who allows the title of this volume to deter him from reading it, because he knows nothing of engineering, is unconsciously foregoing a pleasure. It is safe to say that this popular exposition of well-known but little-understood devices is just what many of us have been waiting for. Those of us who have an overwhelming sense of our own ignorance in the presence of a steam engine should examine for a minute the full-page drawing entitled "The Soul of the Steam-Engine," in which a cylinder is represented as if transparent, thus enabling us to see what takes place within its walls. The gas-engine is similarly explained by simple description and illustration, and this simplicity and clearness is carried through the entire range of subjects, from the making of big guns to submarine diving; from the trolley-car to war vessels; from running water to the railway.

GAS-ENGINE DESIGN. By E. J. Stoddard. Detroit: Parker & Burton. 4to; 100 pp. Price, $1.

The pamphlet starts with an introduction on compressed air. It discusses, in ordinary language, gasoline and air mixtures, valves and helical springs, the



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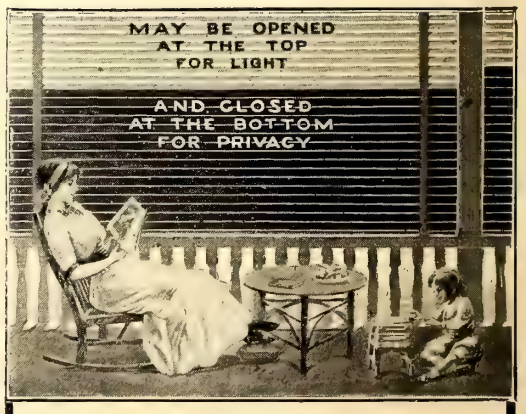

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strength and proportion of parts and the sparking coil. Diagrams are presented for obtaining without calculation the pressure and volume during compression, the maximum explosion pressure and the theoretical indicator diagrams. The large pages permit of large drawings, whose smallest parts are thus readily seen and their functions easily understood.

WESTERHAM WITH ITS SURROUNDINGS. A Handbook to Wolfe-Land. By Gibson Thompson. New York: Frederick Warne & Company. 112 pages; illustrated.

The quiet little Kentish village of Westerham is the birthplace of General Wolfe. Although so near London, the surrounding district is intersected by rambling paths that give glimpses of some enchanting views. The village itself is little altered since the days of Wolfe. The philology of the name carries us back ten centuries. In the Domesday Book of William the Conqueror it appears as "Oistreham." The handbook—one of the famous "Homeland" series—while serving as a brief history and general guide to the district, lays much stress upon Wolfe's connection with Westerham, sketches his boyhood and manhood, and presents pictures of the vicarage in which he was born and of the buildings and byways so familiar to him.

CONCRETE FLOORS AND SIDEWALKS. By A. A Houghton. New York: The Norman W. Henley Publishing Company. 63 pp.; illustrated. Price, 50 cents.

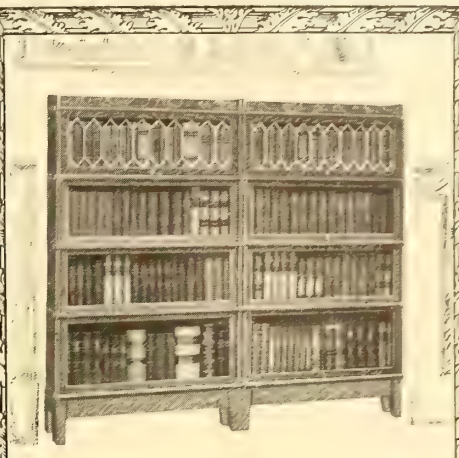
This is No. 2 of the series of monographs on kindred subjects, and proceeds from the simplest forms of floors and sidewalks to the most ornamental tile effects. There are timely warnings as to the reason for common defects in the work. It is the author's claim that the greatest measure of success is usually secured by the simplest and most inexpensive methods, and his best results are obtained by the use of easily-made molds of strap-iron.

MAGICIAN'S TRICKS. How They Are Done. By Henry Hatton and Adrian Plate. New York: The Century Company, 1910. 8vo; 344 pp. Price, $1.60 net.

Most books of this kind consist of a collection of time-worn illusions whose workings have been exposed over and over again. While the old, basic principles are of necessity to be found in this treatise, there are also many things that will be new, at least in their combinations and mode of presentation, to most of our amateur conjurers. Card, coin and egg tricks are dealt with at some length, and there are sections on spiritualistic ties, mind reading and the more elaborate stage illusions. Formulas for making flash paper, conjurer's wax, and other preparations are appended. The illustration is profuse, the description commendably clear.

THE JOY OF GARDENS, by Lena May McCauley. Chicago and New York. Rand, McNally & Company. 1911. Cloth, 8vo. Illustrated, 246 pages. Price, $1.75 net.

The gardens enchanced by garden architecture are beautifying the countryside, but the most joyful gardens are the little plantations of flowers about homes everywhere snuggling away perhaps beyond some privet hedge. The writer has wisely chosen for illustrations examples of the smaller garden, and throughout the pages one finds much that breathes of the spirit of true gardening delight.



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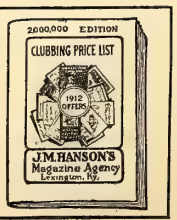

SCOTTISH GARDENS, by Sir Herbert Maxwell. New York: Longmans, Green & Company, 1911. Cloth, 8vo. Illustrated, 206 pages. Price, $2.25 net.

This volume is a representative selection of different types, old and new, of Scottish gardens by an authority, who presents not only his antiquarian knowledge carefully, but delightfully. The book is exquisitely illustrated in color with thirty-two plates by Mary G. W. Wilson, who, by the way, is a member of the Pastel Society and the Society of Scottish Artists. The opening chapter concerns itself with Scottish Gardens in General; then there are thirty-three chapters on various historic gardens, and an appendix of species of Rhododendrons Suitable to the Climate of the West of Scotland, and another appendix on the subject of other shrubs which have proved hardy in Scotland. Although this book has to do with gardening in the British Isles, it is a volume that will be none the less interesting therefore to American readers. The illustrator's work alone contains many suggestions that will be applicable to the garden in our own country.

THE BOOK OF ROCK AND WATER GARDENS, by Charles Thonger. New York: John Lane Company. Cloth crown, 8vo. Illustrated, 94 pages. Price, $1.00 net.

This is an excellent handbook to rock, wall and water gardens, containing a detailed account of the culture of Alpine plants, a division of gardening that has recently come to the attention of the gardenmakers of America. This volume should arouse in those who have no knowledge of rock and water plants, and yet have facilities for growing them, an interest in the subject. Water gardening must not be thought to appeal only to a favored few, inasmuch as aquatics may be grown under purely artificial conditions, and the pleasure of the water garden is not limited to the possessors of natural streams and ponds. In these days of stress and hurry, when one seeks in Nature the balm for many ills in our gardens and all that pertains to them, one may hope to find rest and relaxation in the pursuit of just such plant culture as Mr. Thonger sets forth in his delightful volume.

BACKBONE OF PERSPECTIVE. By T. U. Taylor. Chicago: The Myron C. Clark Publishing Company, 1910. 12mo; 56 pp.; illustrated. Price $1.

The student will find this to be a helpful little manual on a subject not without difficulties of its own. First, the primary principles of plan and projection, lines, points and planes are set out by problems and diagrams; then the vanishing-point method is applied to monuments and buildings; axometric projections are given a chapter to themselves; and the rules governing the perspective of shades and shadows conclude the treatise.

THE LURE OF THE GARDEN, by Hildegard Hawthorne. New York: Century Co., 1911. Cloth. Quarto. Illustrated. 259 pages. Price, $4.50 net.

The granddaughter of Nathaniel Hawthorne has contributed to essayical garden literature this delightful book, containing chapters on such topics as Our Grandmothers' Gardens; Childhood in the Garden, Winter Gardens, The Social Side of Gardens, Gardens in Literature, etc. Miss Hawthorne's volume is one of the most beautiful books of the season, exquisitely illustrated by Jules Guérin, Maxfield Parrish, Anna Weyland Betts and Ivan Ivanowski.

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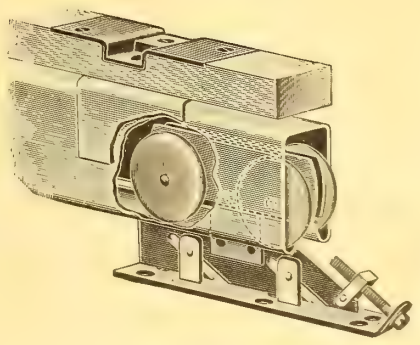

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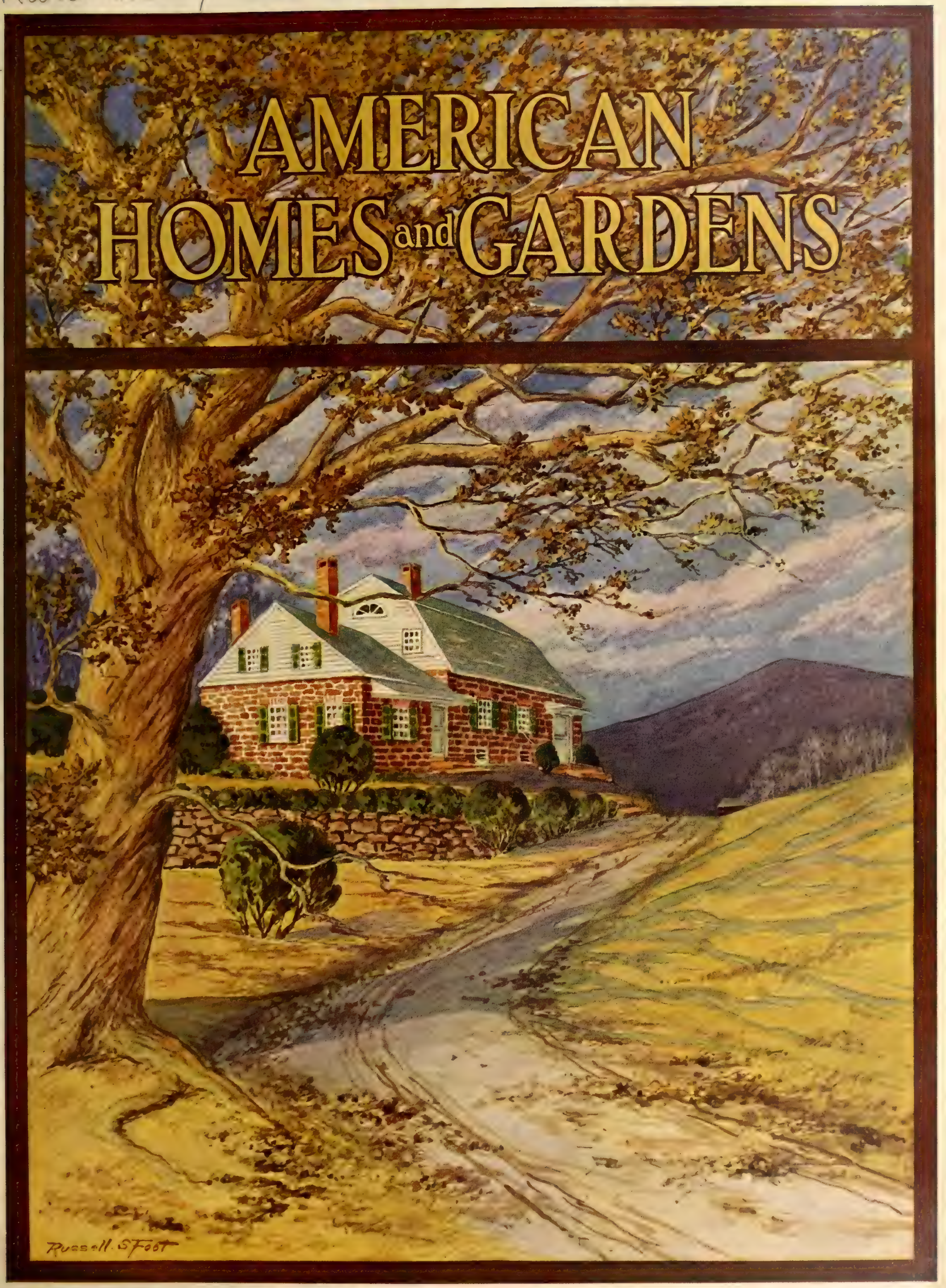

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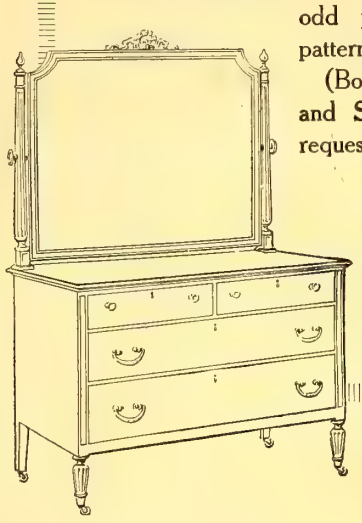

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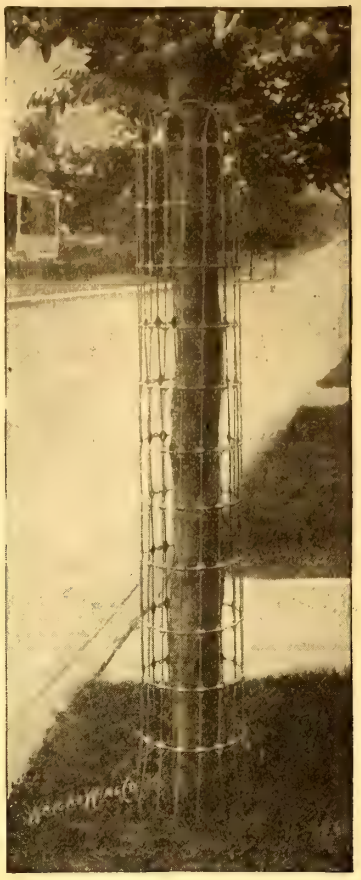

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By IDA D. BENNETT

THE "sitting hen" is not so much in evidence these days as one would wish her to be, perhaps. When one has jealously saved up one or more settings of our choicest eggs in anticipation of utilizing them for future additions to the flock, it is trying, to say the least, to see all one's flock go on contentedly from day to day laying eggs and busying themselves about the house and yards with apparently no thought of their duties to the coming generations of chickens which shall fill the pot and egg basket when they are no more. Formerly, the sitting hen was the bane of the poultry keeper and schemes for her effacement were rife. Every country woman has some dearly cherished formula for "breaking up a hen," but so far no one has evolved a satisfactory scheme for setting them. There is no question of the superiority of a hen over an incubator and as a mother she discounts any brooder yet invented many times over, and could she be set during the early spring months, we would have little, if any, use for the machine-completed chickens.

Frequently a hen will show broody tendencies for a day or two and then go back to laying, and it is never wise to set a hen until it has been clearly demonstrated that she has a well developed attack of incubating fever. When a hen stays on the nest in the daytime and is cross when approached, but returns to the perches at night, the symptoms are not to be trusted, but if she remains on the nest throughout the twenty-four hours, leaving it only once or at most twice a day for food, and comes off clucking and with outspread wings and ruffled feathers, it may be accepted as prima facie evidence that the attack will run its usual course of twenty-one days and arrangements may be made for setting her, if setting be desired. If, however, it is not desired then means for "breaking her up" must be adopted, and this is usually quickly accomplished by a change of environment. Much time is lost and little is gained by shutting a hen up. This serves rather to encourage the broody tendency, but if the hen can be placed in another yard where the conditions are different and more congenial than those she has been accustomed to, she will become so interested in her new surroundings as to quite forget that she was intending to sit.

When, however, it is decided that Biddy shall follow her natural inclination and sit, the first thing to be considered is the condition of the fowl; she should be perfectly well and, above all things, entirely free from lice of all description. To ascertain the last condition a careful examination of the fowl should be made; take the hen up gently in both hands, holding the wings close to the body and turn her over onto her back, head toward one side and gently separate the feathers along the breast bone and other parts and look sharply for the big body lice which will be found

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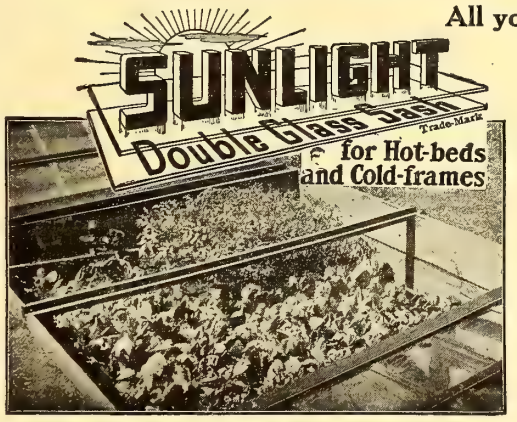

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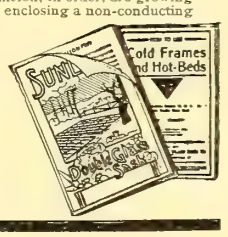

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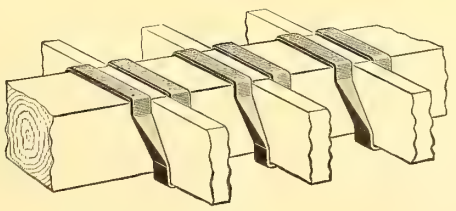

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Upon request a beautiful aluminum desk model will be sent to those contemplating building.

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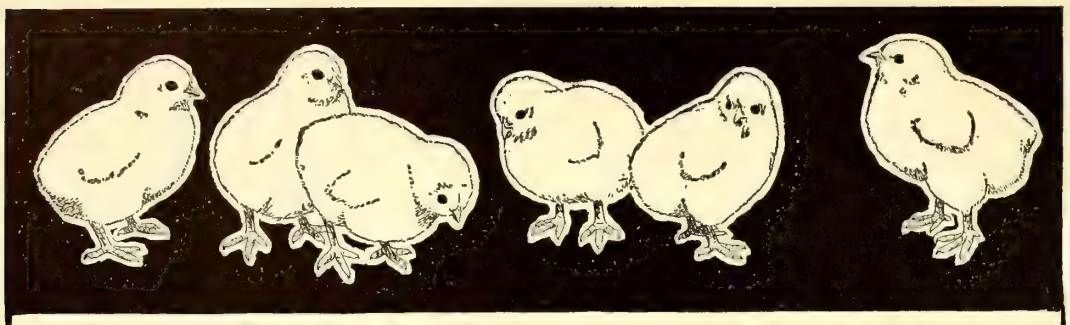

Two Poultry Books Free

If you will send us your name and address we will mail you two valuable Poultry books without cost to you or obligation on your part.

Or for $3.00 we will start you in the poultry business.

We will sell you "The Poultry Review" (12 copies), "The Philo System Book," the new book, "Making Poultry Pay" and "A Little Poultry and a Living," all for $3.00 (15 copies) and to show you how you can make money by the wonderful Philo System we will include and ship you without extra charge:

Six thoroughbred baby chickens, 1 brooder to raise them in, one package "Philo Perfect Baby Chick Food," two galvanized feed and water throughs.

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The reason that we are making you this wonderful offer is the desire to show you how much money you can make by taking up the wonderful Philo System coupled with the assistance which the Poultry Review will give you during the year.

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2. Six thoroughbred chicks, one brooder with feed troughs, and complete instructions for building patented coops with every order for $3 00 worth of the latest and best poultry reading, fifteen volumes in all. Write to-day.

TESTIMONIALS

New Bedford, Mass., Dec. 13, 1911.

Mr. E. R. Philo, Elmira, N. Y.

Dear Sir:—I am very glad to inform you that my White Orpington chicks are all alive and smart. They are just six weeks old and weigh 1¼ pounds. I have them in an Economy Coop and they are growing and developing finely.

M. Goulart.

Scranton, Kansas. Nov. 1, 1911.

Mr. E. R. Philo, Elmira, N. Y.

Dear Sir:—Yours of October 26 on hand and beg to say that I have raised all of the White Orpingtons so far. Their average weight is 2¾ pounds each and not quite three months o'd yet. Being a beginner it was quite interesting to watch their development.

Walter Burkhardt.

Marathon, Fla., Dec. 5, 1911.

E. R. Philo, Elmira, N. Y.

Dear Sir:—The little one day old chicks I bought of you are thriving, and all who see them remark about their thrifty, healthy appearance.

I do not expect to lose one of them from weakness or sickness. I refused $20 for them last week.

E. J. Devore.

Paeonian Springs, Va., Nov. 23, 1911.

E. R. Philo, Elmira, N. Y.

Dear Sir:—Your letter of the 20th received, and in reply can give an excellent report. I have had splendid success, have five out of six. Out of the six you sent there were four pullets and two cockerels. My White Orpingtons are a credit to you as well as myself, and they have been raised almost entirely by the Philo System. If at any time I need any poultry supplies you will hear from me.

Mrs. J. G. Jacobs.

Augusta, Ga., Nov. 3, 1911.

E. R. Philo, Elmira, N. Y.

Dear Sir:—The six baby chickens I bought from you arrived all O. K. They were, however, delayed about twelve hours in reaching me, but they were bright and active. I received them at night and the next morning they were hungry as wolves, and I made them the custard you suggested. I am greatly pleased with them and expect to make good later on. They are the most active chicks I ever saw.

Dr. W. S. Wilkinson.

Philo National Poultry Institute

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Dept. "A. H." Bucks County, Yardly, Pa.

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AND NOT A POISON—Harmless to Animals other than mouse-like rodents. Rodents die in the open. For a small house, 1 tube, 75c; ordinary dwelling, 3 tubes, $1.75; larger place—for each 5,000 sq. ft. floor space, use 1 dozen, $6.00. Send now.

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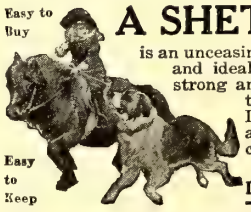

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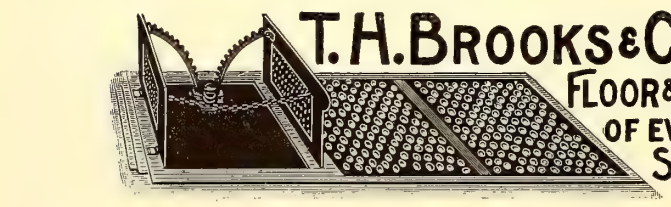

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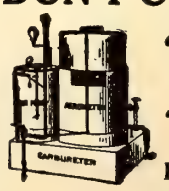

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there; one must look quickly, for the lice move with incredible swiftness, and the insect powder must reach them before they have time to escape. Then the head and neck must be examined for the head lice which are so deadly to the young chicks, as this variety of lice leave the hen as soon as the chicks are hatched and take up their abode upon their heads and necks where they attach themselves and drain away the life blood, and if not ousted soon cause the death of the chicken. These are the important points for treatment, but the whole surface of the body should receive a dusting of insect powder—the best for the purpose being the Prussian Insect Powder, which kills instantly any louse with which it comes in contact.

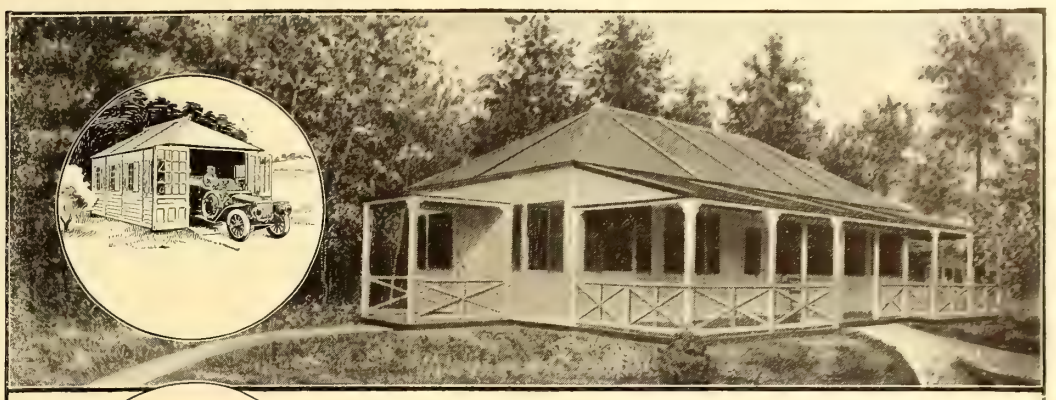
The nest in which the hen is sitting should also be well dusted and the hen placed back again for a day or two, when the dusting should be repeated to remove any lice which escaped or have hatched in the interim, and this dusting should be once more repeated ere the hen is allowed to sit.

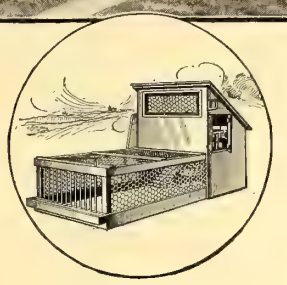
A place entirely apart from the other fowls should be selected for setting her; it will not do at all to set the hen in the hen park or house, as the other hens will cause trouble by laying to her, or even getting into the nest to scratch in the straw or bedding, and much damage to the eggs will ensue if the hen is not eventually driven to abandon her nest. A quiet place where the nest can be placed on the ground, but under shelter, and where the hen can come and go on her nest, is best in every way, and if this is also a place the young chicks can be reared in, so much the better. A separate park for the purpose, or a barnyard with an open shed meets all requirements.

For a nest I have a strong prejudice in favor of barrels turned on their side on the ground, and rarely use anything else; these are sufficiently roomy and free from the deadly corners which make boxes so objectionable; where boxes must be used strips of wood should be nailed in each corner to cut them off and make an octagon of the box. There is no escape for a little chicken in a box when the hen becomes uneasy, as she sometimes will, and begins to turn everything upside down, but in a barrel they will climb up the sides, finding ample foot-hold on the projecting edges of the staves, or if the barrel is open they can readily escape.

Boards for closing the ends of the barrels at night should be provided and every effort made to protect the contents from marauding cats and rats, which latter will steal the eggs and little chicks from beneath the hen if admission to the barrel is possible.

I prefer to set my hens in the morning when both I and the hen can see what we are about. I make a nice nest of straw, or of sawdust, and place the eggs therein, and then go for my hen. I sit down in front of the barrel with her in my lap facing the nest and where she can see little else than the interior of the barrel and its tempting array of eggs; after a few moments' survey she will almost invariably step into the nest for a closer inspection, step over the nest, turn around and begin to feel of the eggs with her bill, finally ending by sitting down over them and tucking them away under her breast and wings, when, with a final flutter and settling of feathers, the work of incubation has begun and there is almost never any further trouble thereafter.





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Write us what you are interested in—if a Cottage, how many rooms. If a Garage, the over-all length of your car and how many cars. If a Poultry House, how many fowl you wish to accommodate. We can then send you printed matter or catalog illustrating goods that will answer your requirements.

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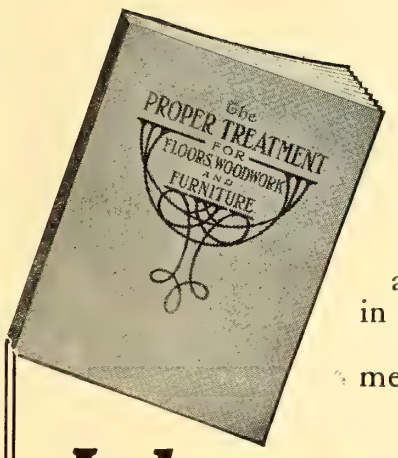

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This is the kind of food for which The Chamberlin is famous, and the cooking—well, delicious comes far from adequately describing it. It's something that will linger in your memory long after other joys are forgotten. The daily menus are elaborate—the service perfect in every detail—and no one ever *stays* at The Chamberlin without having an appetite. The Invigorating Air, the Wholesome Recreation takes care of that.

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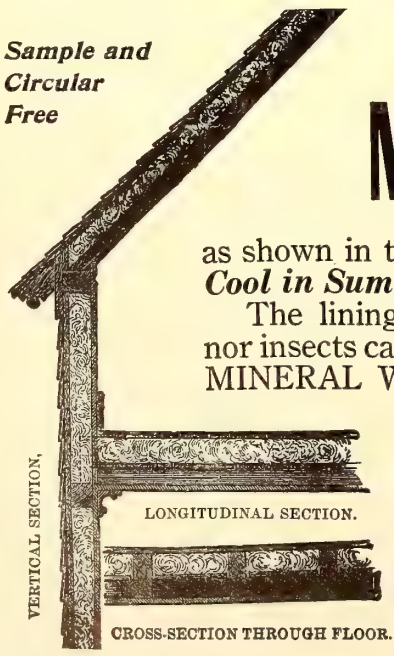

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U. S. Mineral Wool Co.

140 Cedar St., NEW YORK CITY

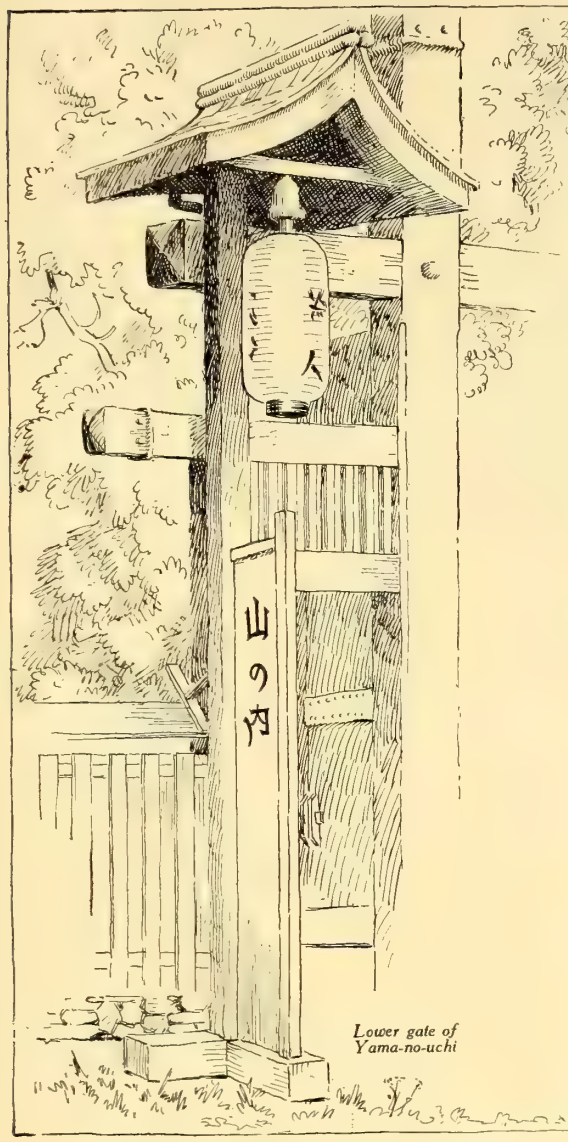
I have never had but one hen refuse to go on the nest of her own accord and she had to be shut in for a day or two, after which there was no more worry.

Once set, the hen should be disturbed as little as possible. She should be fed twice a day, placing the feed where she can see it, but never under any circumstances in the barrel, and keeping a supply of fresh water where she can get it at will. If there is no natural dust bath available a dish of sifted coal ashes should be placed where she can get it, and this should be well sprinkled with insect powder.

If the hen is sitting in a very dry place it will be necessary to supply moisture to eggs and bedding by sprinkling them with warm water once or twice a week and again about the time they are to hatch.

The hen should be disturbed as little as possible when hatching; if eggshells are thrown out of the nest regularly it may be taken for granted that the hatching is progressing favorably, but if it appears that the eggs are not hatching as they should and more than twenty-two days have elapsed it will be well to examine the eggs by holding them to the ear; if no sound is discernible—a slight rustling or crackling sound or a tiny peep—the egg may be shaken carefully; if there is the sound of agitated water, the egg may be set down as addled and removed. When ever so faint a peep is heard instead there is a little imprisoned chick inside, probably too feeble to force its way out, and the shell may be carefully chipped as near the head as may be determined. If the inner skin is found dry and tough it should be moistened by dipping the finger in warm water and touching the skin until it becomes soft and pliant; never remove the skin when it shows blood veins or the chick will bleed to death; these veins and the yolk of the egg are the last thing absorbed by the chick before it breaks the shell, and on these it exists for the first twenty-four hours, and when they are present it indicates that the chick was not yet quite ready to leave its shell. Sometimes when eggs are a little old or have been sent from a distance, or from not especially a vigorous parent, the eggs require more than the regular twenty-one days to hatch, and these facts must be taken into consideration in judging whether interference is called for.

No feed should be offered the hen when hatching or until she voluntarily leaves the nest with her brood, then the first meal for the little chicks should be hard boiled egg chopped fine, and a little scalded milk to drink. Very young chickens should be fed every hour, placing only as much food before them as they will eat up clean and removing any that may be left. Clean water in shallow dishes should be always available, and the dishes should be changed and cleaned frequently. Do not use anything large enough to seriously wet a young chick, and surely nothing large enough for them to drown in should be placed before them; the saucers which come with flower pots make admirable drinking vessels for little chicks, and if a flower pot with a small hole drilled near the top and the hole in the bottom corked is filled with water and the saucer turned over it and then reversed, one has an excellent home-made drinking fountain, quite equal for all ordinary purposes to the ones in the market.



Lower gate of Yama-no-uchi

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SEVERAL years ago, after thoroughly and scientifically investigating the different breeds of chickens, we decided that the Minorca was the most desirable—

First—because of the beauty of the bird itself.

Second—because it lays the largest hen's egg known, and attractively white-shelled.

Third—because it lays not only the largest eggs but is among the heaviest layers.

Fourth—because its weight and extra long breast bone, providing an unusual amount of white meat, make it especially desirable for the table.

We bought the best breeding stock to be had and have developed the Yama Single-Comb Black Minorcas — high-stationed cocks that weigh 8½ pounds and upward, and hens 7½ pounds and upward—extra heavy layers of large white-shelled eggs.

The fact that we have been successful is demonstrated by our First Prize for a pen at the Madison Square Garden in December 1910, and again with entirely different individuals, a First Prize for a pen in 1911, with other prizes for first Cock and second Hen, etc.

All of these birds, with 200 other aristocrats selected from thousands of thoroughbreds, are now in our breeding pens.

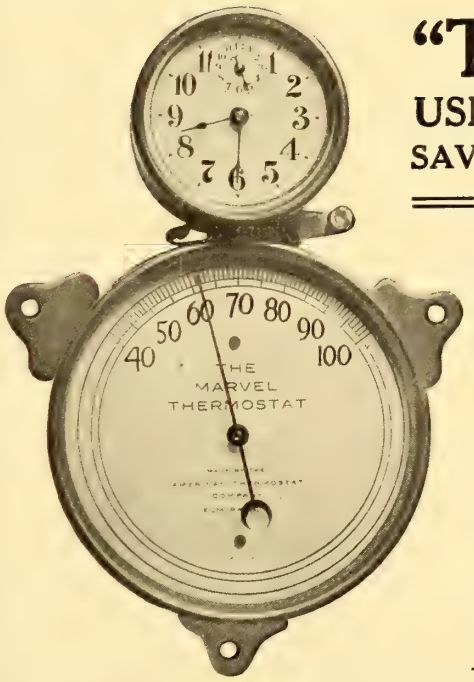
Last season we did not care to sell eggs from our best prize pens, but only from our heavy laying stock.

This season (after February 1st) we are ready to supply eggs for hatching from our best birds at $10 for a setting of 15 eggs. We guarantee that any infertile eggs, if returned, will be replaced free of cost.

We can sell no more hens or pullets this season, but we can spare a few well-bred cockerels — brothers of our finest pullets.

山の内

YAMA FARMS, Yama-no-uchi, Napanoch, New York



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USED IN CONNECTION WITH ANY HEATING SYSTEM

SAVES LABOR AND COAL. PREVENTS FIRE AND SICKNESS

The Clock and Thermostat, finished in rich brushed brass (shown on the left) are located in the living room, or any other room desired. From this a concealed electric wire leads to our motor in the basement, by which the drafts of the heating system are automatically controlled.

You can have any temperature desired, by simply setting the Thermostat to the required degree.

You can make the temperature low during the night or when absent from home, and automatically, the drafts will be turned on in the morning or just before returning to your home, by setting the alarm hand on the clock for the designated hour. The Thermostat will then be turned up to seventy (70) degrees, the motor automatically put in operation, the drafts turned on, the temperature brought to the desired degree, and so remain until changed.

Every heat unit in your fuel is used, and a uniform temperature is assured. The danger of fire is lessened by making it impossible for the furnace pipes or radiators to become overheated. A great amount of labor is eliminated by the drafts being controlled by our motor, *and the saving in coal will pay a big return on your investment.*

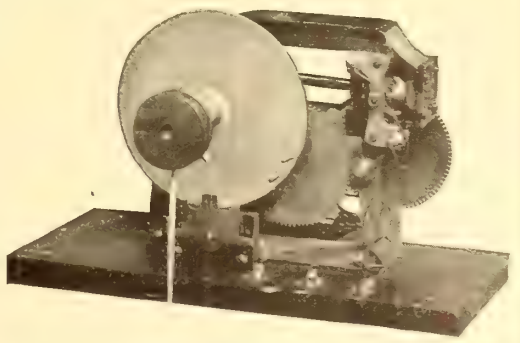
Without any obligation—write for our Booklet—and any other information desired.

Marvel Automatic Motor

The "Marvel" requires no winding or pulling up of weights, as do all other Thermostats, and *operates the entire season without any attention.* The cut below shows our motor operated by four dry cells.

It is compact, durable, and put up with neatness and mechanical skill exceeded by no other Thermostat.

It is the *only complete automatic Thermostat in existence*, and, by reason therof is the best time, labor and fuel saver on the market.



AMERICAN THERMOSTAT COMPANY

Department "A," ELMIRA, N. Y.

From a Photograph Showing the Last Step in Locating the Exact Center of Population of the United States.

"The Center of Population"

A Title that Fits Every Bell Telephone

From the census of 1910 it is found that the center of population is in Bloomington, Indiana, latitude 39 degrees 10 minutes 12 seconds north, and longitude 86 degrees 32 minutes 20 seconds west.

"If all the people in the United States were to be assembled in one place, the center of population would be the point which they could reach with the minimum aggregate travel, assuming that they all traveled in direct lines from their residence to the meeting place."

—*U. S. Census Bulletin.*

This description gives a word picture of every telephone in the Bell system.

Every Bell telephone is the center of the system.

It is the point which can be reached with "the minimum aggregate travel," by all the people living within the range of telephone transmission and having access to Bell telephones.

Wherever it may be on the map, each Bell telephone is a center for purposes of intercommunication.

To make each telephone the center of communication for the largest number of people, there must be One System, One Policy and Universal Service for a country of more than ninety million.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES
One Policy ***One System*** ***Universal Service***

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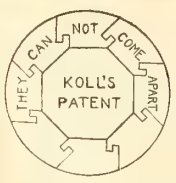

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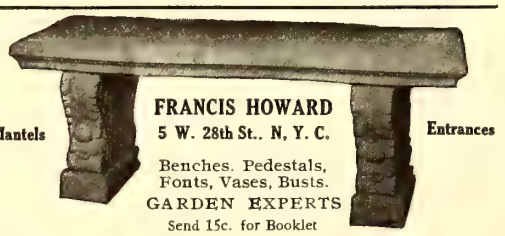

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ARCHITECTURE AND THE LAYMAN

By MIRA EDSON

IT is said that the average layman looks upon architecture as a mystery only to be comprehended by the learned or experienced, and hence he leaves architectural journals quite out of his reading. Perhaps it is true also that he knows so little of the subject because until lately the popular magazines have given it so little attention, and it has been, as a matter of fact, easily open only to those with some professional or student interest to begin with. There is no lack at present, however, of popular literature upon the subject.

As a matter of fact, architecture, and those subjects intimately connected with it, is the art which may be best and most easily apprehended by the layman, because having a basis in use certain of its values are at once perceived and may form a beginning for further development of it. Architecture stands, as one may say, at the center of the arts from which they move out either toward abstract beauty or toward the practical and constructive. Architecture is so closely concerned, too, with our civic life that it could not only prove, to those persons who may take a vital interest in it, an avenue of unsuspected imaginative wealth for them, but it would do much to forward a general art development among us. "If a little more interest were taken by laymen in simple architectural problems," it is claimed by professionals, "these would certainly be better solved." The layman therefore does well to consider articles in architectural as well as popular journals, and for the interest the subject itself can give outside of any personal immediate practical application.

Early American ideals were sound here. "Beauty, convenience, grandeur of thought and quaint expression are as near to us as to any, and if the American artist will study with hope and love the precise thing to be done by him, considering the climate, the soil, the length of the day, the wants of the people, the habit and form of the government, he will create a house in which all these will find themselves fitted, and taste and sentiment will be satisfied also." So spake the sage of New England at a time when we are wont to consider the arts less "progressive" than to-day. They were less self-conscious, certainly, but not less true because of that, and they have left us remains which are, in their way, so eminently suitable and fine that we rejoice in The Colonial even to the point of imitation.

There are numerous books put out to-day for the purpose of introducing the people to this subject, and which present it in an interesting and simple way; books which illustrate their points by reference to concrete examples which are to be seen in the streets of New York city and elsewhere; buildings which illustrate the styles of the past and also the tendencies in modern building and the opportunity these offer for beauty. There are also lectures upon these subjects which are given free in all the large cities, and there are societies which one can join which make it their aim to stimulate and to further study and to suggest practical helps to those desirous of learning. If the nation is to make any real advance in Civic beauty and in the development of architectural style the whole people must be initiated. Those who would acquire some knowledge of styles, however little, learning something of their history and their influence to-day, will find that it amply repays any time or trouble spent therein.

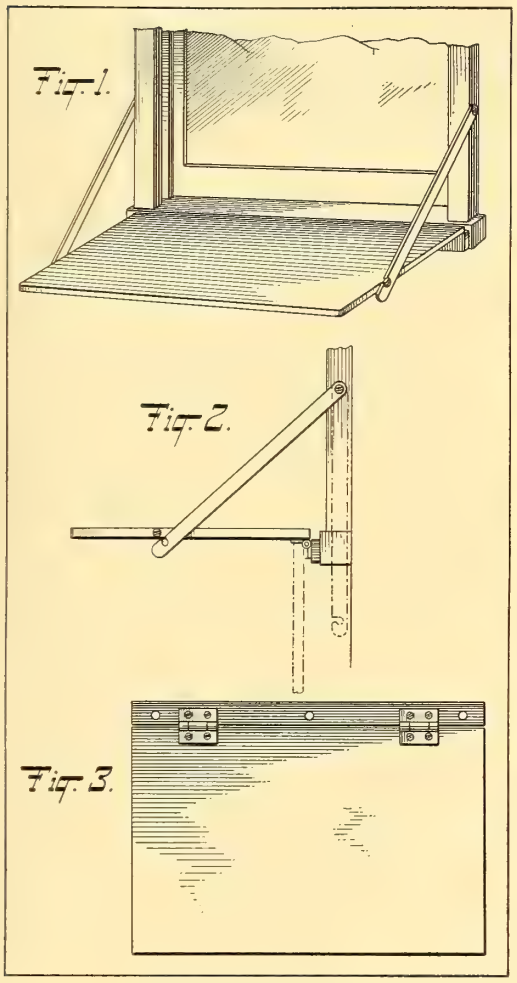
A CONVENIENT SHELF FOR MANY PURPOSES

By IDA D. BENNETT

ORIGINALLY intended for a drawing convenience which would afford abundant elbow-room in a room where space was at a premium, the shelf was found adapted to so many purposes as to be available in every part of the house.

Placed between two windows in a bedroom, it formed, when properly draped, a most attractive toilet table. Given a four-inch border to match the woodwork in the room, and with the center covered with green felt, finished with furniture gimp, it proved just the place for magazines—a permanent place where they were out of the way and always easily available and in order.

In the kitchen it furnished an extra table when needed and was dropped out of the way and inconspicuous when not in use.



The drawings show the construction of the shelf and the manner of attaching it to the wall. Its size varies with the use to which it will be put. If under a window, it should be as long as the window casing and wide enough to come to the top of the baseboard, or even to the floor. It should be made of smooth lumber and should, if possible, be glued together rather than nailed to cleats; this gives a top surface which may be finished to match the woodwork of the room. This, of course, would not be of moment where the shelf was to be used as a toilet table, as the cover would conceal the wood.

For use in a window where house plants are kept, the shelf is ideal, as it not only increases the capacity of the window but also affords a place for handling the plants when they require it, for changing them about or for drawing them back from the window on a frosty night.

It is in the matter of their cost that such devices prove of special value to the home-maker and one should always seek to make the most out of material which is at hand.

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Hardware

THE beauty and artistic quality of Sargent designs are apparent; they are on the surface, to be seen by everyone. Beneath them are qualities of material and workmanship that are appreciated by experienced architects and expert workmen.

Carpenters and locksmiths recognize the inner worth of Sargent Locks. They see in the solid construction the security for which these locks are famed; they find every part accurately fitted in its place.

Sargent Hardware and Locks are smooth-working, efficient; they work with ease, quiet and sureness through long years of service.

The Sargent Book of Designs—mailed free

illustrates many patterns suitable for public buildings, residences, etc. Write for this book and confer with your architect in the selection of a design to harmonize with your architecture. Ask him to specify the use of Sargent Hardware throughout the building.

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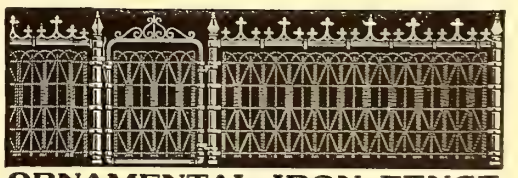

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Reliable dealers and painters recommend them, although they can make more profit on the cheap and inflammable mixtures of kerosene and benzine. Every cent "saved" in buying cheap stains is a dollar wasted in labor and value.

"Your stain, which has been used in this neighborhood, has always improved with age, growing deeper and richer in tone, while the cheap stains have ruined the appearance of several houses here, fading to a rusty brown entirely or in spots."
—W. A. Foot, Brooklyn, N. Y.

You can get Cabot's Stains all over the country.
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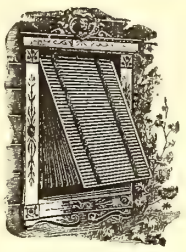
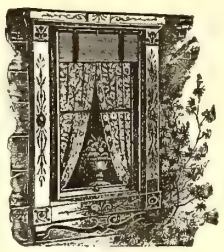
Wilson's Outside Venetians

Can be used as a blind or an awning at will. Can be pulled up out of sight if desired. Slats open and close. Admit air, exclude sun. Operated from inside. Suitable for town and country houses. Orders should be placed NOW for Spring or Summer delivery.

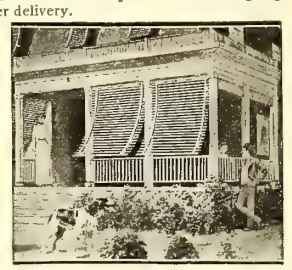
Inside View



Outside View



Blind Pulled Up

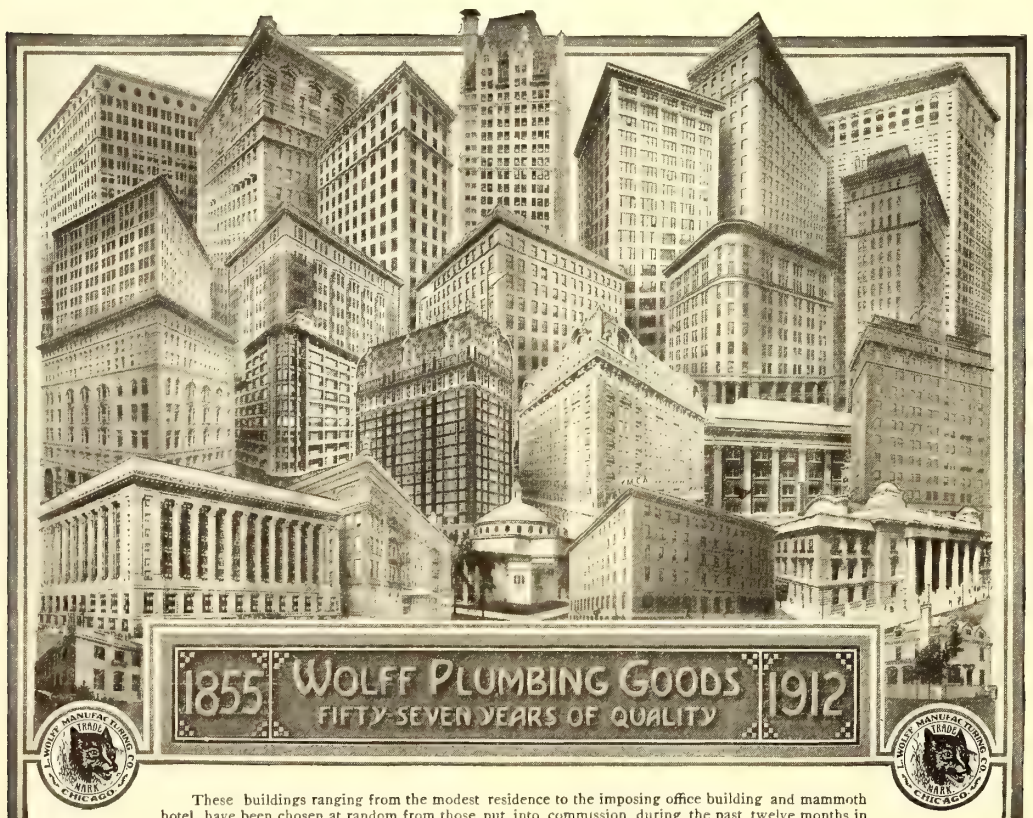


Venetian Blinds for Piazzas and Porches

Wilson's Blinds have been furnished to the homes of Charles Lanier, J. P. Morgn, A. G. Vanderbilt, Clarence Mackay, Wm. C. Whitney, H. M. Flagler, Mrs. R. Gambrill, J. S. Kennedy, C. Ledyard Blair, James C. Colgate, O. Harriman, Jr., and many others.

Send for Catalogue Venetian No. 5.

JAMES G. WILSON MFG. CO., 5 West 29th Street, NEW YORK



These buildings ranging from the modest residence to the imposing office building and mammoth hotel, have been chosen at random from those put into commission during the past twelve months in the different cities of the United States and represent a fair selection from the many examples of Architectural Art. In all of these the far-seeing architect has specified and the discriminating builder has accepted Wolff's Goods as embodying all the desirable features of modern plumbing backed by the reputation of Fifty-seven Years of Quality.

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TEMPERATURE AND HUMIDITY OF WORKROOMS

THE effect of different temperatures and degrees of humidity in the air in diffrent workrooms, mines, etc., has been tabulated by a German, who sums up his observations and recommendations as follows:

At a temperature of 10 deg. C. (50 deg. F.) the worker is liable to catch cold if not protected specially by warm clothing. If the work is severe physically and the body thereby greatly heated, a temperature of at least 12 deg. C. (53.6 deg. F.) is necessary for comfort and health. If a lower temperature is unavoidable, then thick clothing is necessary. If the work is physically less exacting, with ordinary clothing 18 to 20 deg. C. (64.4 to 68 deg. F.) and about 40 per cent. of saturation is right. Miners, tunnel laborers, bakers, etc., who are compelled to work where the temperature is 30 to 56 deg. C. (86 to 132.8 deg. F.), with humidity 60 per cent. and even over, are in danger of heat-stroke, unless special precautions be taken to prevent it. For temperatures over 50 to 60 deg. C. (122 to 140 deg. F.), where the air is dry—say with humidity 20 per cent.—as is the case with glass blowers and distillers, the work is not so exacting by reason of the low degree of moisture.

The two sets of workmen mentioned last should as far as is practical strip for their work, and should enjoy good ventilation; also should use heat veils and screens.

THE CARE OF MILK IN THE HOME

COOLING AND COVERING

Retrun promptly to the ice box unused portion of milk. Standing in the warm room will greatly hasten the growth of germs. Keep the milk tightly covered, so that dust, dirt and flies may not enter.

OPENING BOTTLES

Wipe the mouth of the bottle carefully with a clean towel before removing the cap. Use a sharp pronged instrument, inserted diagonally into the center of the cap, to remove it. Keep this instrument clean. Lift the cap with care and rinse it in clean running water before replacing it.

IMPROPER IMPLEMENTS

Do not use large steel knives, shears or other heavy implements to remove the cap. Such instruments splinter the glass, particles of which may enter the milk.

Many dealers, on request, will supply convenient implements for this purpose.

CLEAN VESSELS

Pour the milk into clean receptacles. Dirty vessels will as readily contaminate the milk as will dust, dirt and flies.

Place milk dipped from cans or tanks only in clean covered pails or other covered receptacles.

UNUSED MILK

Pour only enough milk from the bottle for the specific use. Do not put any unused portion back with the milk which it was taken but place it in the ice box in another covered vessel.

DAILY SUPPLY

Do not keep more than one day's supply of milk at a time. Order a fresh supply daily.

MIX THE MILK

Mix the milk well before using. Inverting the bottle rapidly two or three times will accomplish this. Cream separates and rises to the top, making this mixing necessary.

THE EDITOR'S NOTEBOOK

FOR MARCH, THE ANNUAL HORTICULTURAL NUMBER

WHEN one sits in his easy chair, drawn up before the cheery blazing fire of the Winter months, he may be dreaming of the delights of Summer and of all that Nature's loveliest season now holds in store for him to be disclosed when the months to come shall clothe the earth in gay raiment of emerald verdure, patterned with countless gorgeous flowers. But if he would assist in making the days to come more joyful in all the happiness the possession of a beautiful garden (even though it may be a tiny one) brings to everyone, he must begin early in the year to busy himself with all the things that concern planting. That is one of the reasons why the March number of AMERICAN HOMES AND GARDENS, this magazine's annual horticultural number, will devote much of its space to gardening articles. Indeed, no amateur gardener can afford to be without it, for it will serve as a veritable garden primer of the subjects of which it will treat. The opening article will tell the reader all that it is probably necessary for him to know about the flower garden, while the original and very helpful planting table for flowers, as well as the exquisite illustrations that accompany the text, will make this March gardening guide invaluable not only to the amateur, but to the professional gardener as well. Moreover, the article will be of interest to every reader whether or not he is or has been interested in the subject, for it is approached from an unhackneyed point of view in a manner that should make a wide appeal. The Editor of AMERICAN HOMES AND GARDENS believes that many of the gardening articles appearing from time to time in various publications that assume the task of helping the home-builder are, after all, little more than "dry bones" of compilation dug out of encyclopaedias of horticulture, culled from agricultural bulletins, or government reports, with little reference to their constructive value outside of specialization. Of course, a magazine devoted solely to the subject of gardening may be expected, in the course of its run throughout several years, to have covered its field pretty thoroughly, and for novelty to be depending somewhat upon specialized subjects with a limited interest. However, knowing that there exists a perennial interest in the planning, planting and care of a garden, the Editor of AMERICAN HOMES AND GARDENS seeks writers on horticultural subjects who are also alive in their interest to the fact that our readers should have, and are having horticultural articles placed before them in the pages of this magazine, designed to have a definite constructive bearing upon the relationship of the garden to the home and home life. AMERICAN HOMES AND GARDENS does not seek to present mere horticultural novelties, compilations or specialized agricultural experiment notes, but instead gives every one of its readers horticultural information that will prove of value to all, and presents it clothed in readable text that is more than mere pen-task. Mr. F. F. Rockwell, an American agriculturist and horticulturist of recognized authority, will contribute an unusually valuable article to the March number on "Planning and Planting the Vegetable Garden," which will be copiously illustrated with reproductions of the finest photographs procurable, and further enhanced in both utility and interest by the accompaniment of one of the best and most practical planting tables ever devised. There will be other gardening articles in the March number, and two architectural articles on two attractive Western houses, together with a description of "A Chalet on the Maine Coast."

FARMING AND EDUCATION

AT the time of its recent national convention in New Orleans, the American Bankers' Association appointed a committee, to be known as the Committee on Agricultural Development and Education, for the purpose of referring to it the matter of looking into the financing of farmers on small tracts of land. This follows the example set by the Minnesota Bankers' Association, appointed some time ago to investigate the subject of agricultural development in Minnesota. It was found by the Minnesota committee that out of the state's 435,000 school children, some 1,800 were taking the agricultural courses offered by the state's various schools and colleges. From these figures, the committee reasoned that 99.6 per cent. of the coming generation were being educated by the state primarily to be consumers, whereas the future producers were represented by only four tenths per cent. With Minnesota's 45,000,000 acres of uncultivated land, against some 19,000 million acres of farm land under cultivation, as has been pointed out in a recent review of the situation by Mr. Joseph Chapman, Jr., chairman of the American Bankers' Association committee, it would seem that there must be some definite connection between the educational problem and the agricultural problem, suggesting the necessity of bringing about a reconstruction of our present school system to meet the necessity of fitting our children for meeting the more practical problems of life, that must be faced by an earlier training for pursuits, trades or professions that will enable them to earn their own livelihood. This is a matter which the Editor of AMERICAN HOMES AND GARDENS believes to be one of the most important questions of the day. We have been prone to admit everything from bead-stringing to basketry into the curriculum of our schools, but we have paid very little attention either to discovering the natural bent of the child in school or of developing it in accordance with natural interests. The old-time apprenticeship system, fraught with hardships and rigors our civilization could not tolerate to-day, still offers to us much in the way of valuable suggestion that our educators could well afford to study, inasmuch as the seriousness of our present drifting away from the responsibility of beginning early enough in the child's life to help him to help himself in the matter of choosing the vocation that shall make his future a happy one is definite enough to call for some decided reaction against its pernicious tendencies. Of course, the Editor does not mean that we must return solely to the three R's, nor does he ignore the value of the manual training and like courses in our schools, but he does believe that we waste an enormous amount of time over pedagogic foolishness, to the detriment of our national advance, and he wishes that for every library donated to a municipality there would stand someone ready to follow it—or, better still, precede it—with a trade, technical, agricultural or vocational school.

Why Cast Bronze Hardware?

There are two kinds of builders' hardware. One is cast. The other is stamped from thin sheets sometimes of brass—more often of steel plated to look like some other metal.

Obviously there is not the smallest difficulty in telling the difference between stamped hardware and cast hardware,—if in the purchase you realize that such a thing as stamped hardware exists.

Unfortunately many people do not realize this, and tempted by appearance and the exceedingly low price of the stamped article, they buy what can not but be a source of constant disappointment during its entire existence.

The first and most obvious difference between stamped hardware and cast hardware is pretty clearly expressed by the names under which the two classes are known. Each piece of cast hardware is moulded separately by a skilled artisan.

Stamped hardware on the other hand consists of sheet metal so exceedingly thin that it can be easily pressed between steel dies into the form of the design which has been determined upon, then polished, plated and finished to represent whatever it is intended to imitate.

As the single advantage of stamped hardware lies in its cheapness, it is easy to understand that its finish must be cheapened too.

It is easy to understand also that the design which can be stamped on thin sheet steel must fail utterly in all sharp corners and in those little details of decoration which depend so largely for their attractiveness upon being absolutely clean cut and fine pointed.

Stamped hardware is in the most literal sense of the term a hollow mockery.

This is our advertisement. We have paid for the space and in it we may say what we like about our products. Moreover, we make stamped hardware as well as cast hardware. Therefore our opinion on the subject is utterly without prejudice. Examine for one moment the outline drawing on this page and you will understand the entire problem at a glance.

Perhaps the best way to express it in a few words is to say that you are *disappointed* when you pick up a piece of stamped hardware. It has the appearance of weight and solidity, yet when you take hold of it you feel as though you had been cheated,—as though you had picked up a papier mache imitation of a coin instead of the coin itself.

We are prejudiced against stamped hardware because it is an imitation of something which it is not. It is insincere, it is untrue. Compared to cast hardware, it is poor, and thin and mean,—we are almost sorry it exists. Almost sorry,—not quite.

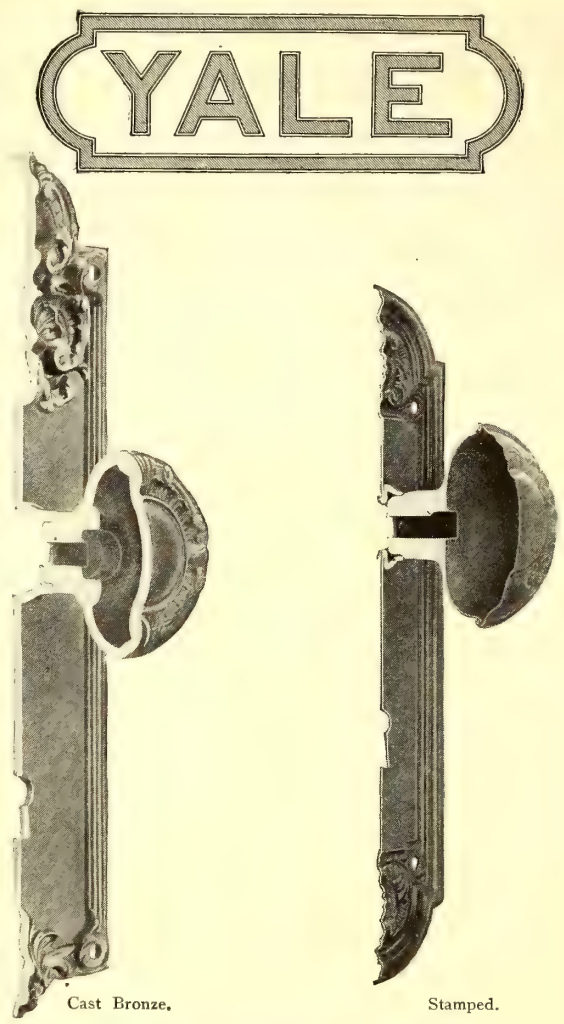
For stamped hardware fills many needs where cast hardware would on account of its cost be wholly impossible and impracticable.

Many a cottage has been made outwardly attractive in its appearance by the use of it.

Sometimes even temporary structures can be fitted with really good looking hardware because of the extreme cheapness of the stamped goods.

On the other hand the word "Yale" has come to stand for so much that is strong, and fine, and solid and substantial, so much that is genuine that we who have been long associated with it, turn naturally to the type of hardware that most nearly represents what we think hardware ought to be.

There is probably no concern in all the world which has given to the production of really beautiful, really substantial hardware the attention that has been given to it by The Yale & Towne Mfg. Company.



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Hamburg

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It is doubtful if there be anywhere a collection of artists who work so sympathetically together, who are so single in their purpose to produce only that which meets the very strictest requirements of quality,—that which most nearly represents the Yale standard.

Every piece of cast hardware produced by these men has behind it the strength and the individuality wrought of a single hand.

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The "Sitting Hen" New Books The Editor's Notebook

Hotbeds and Coldframes

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MUNN & CO., Inc.
Publishers
361 Broadway, New York

FREDERICK CONVERSE BEACH
Secretary and Treasurer

Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

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Photograph by T. C. Turner

The country residence of Mrs. Presby E. Bisland, at Bronxville, New York, is one of the loveliest suburban homes in America

AMERICAN HOMES AND GARDENS

Volume IX — February, 1912 — Number 2

The House in the Suburbs

By Robert Leonard Ames

Photographs by T. C. Turner

THERE would be difficulty in finding an American city set in surrounding country more varied in character than that which encompasses the city of New York within a radius of fifty miles. To the south, Staten Island presents an attractive area, now flat, now hilly; to the east, Long Island lends the low lands of its southern shore, marked by inlets, bays and long sandy beaches, while its northern shores are heavily wooded, boldly outlined with bluffs, coves and sheltered harbors, and to the north of the metropolis stretches the country land of Westchester county, with its picturesque rolling hills stretching from the Hudson away toward Connecticut, where again the shore lands, within a short distance of the great city, attract those home-builders who wish to live near the sea.

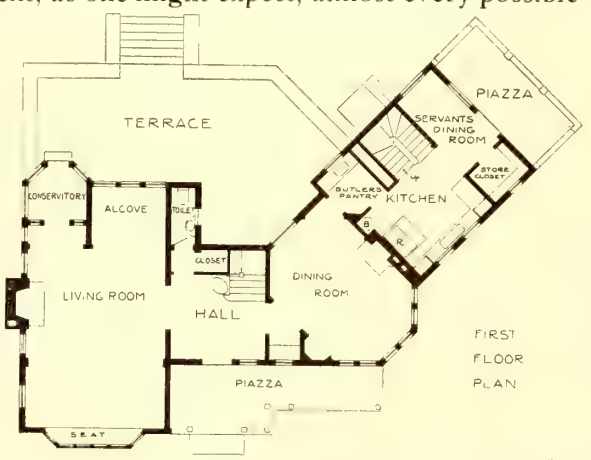
Across the Hudson River from New York, New Jersey

The attractive half-timber house of Mrs. Presby Bisland, at Bronxville, New York, viewed from the side fronting the hedge-bordered roadway

Front of the house of Mrs. Presby Bisland, at Bronxville, New York

stretches toward the west, offering almost an endless variety of landscape—marsh, plain, hillside, mountain and valley. Indeed, the mountain country of New Jersey is so wild in parts that it is really possible to hunt foxes there—within an hour's ride of the center of Manhattan.

The homes which have been built in all these suburban districts represent, as one might expect, almost every possible phase of suburban domestic architecture, which suggests to anyone planning to build a suburban home the wealth of ideas here offering themselves in the various examples of country-house architecture of the sort which one is able to find in the vicinity of New York. Indeed, no other American city offers so wide a range of examples of suburban architecture as does New York, and therefore it cannot fail to be of interest to describe in this article some of the representative types of suburban houses to be found in this varied section of the country, referred to in the introduction.



Plans of the house of Mrs. Presby Bisland, Bronxville, New York

It must be borne in mind that varying styles of architecture do not always harmonize when grouped closely together, but in the case of the houses here described, it may be said that each has the good fortune to command sufficient space for itself to provide an environment that gives it just that necessary isolation to prevent it from either spoiling or being spoiled by the adjacent types of houses not planned in accord.

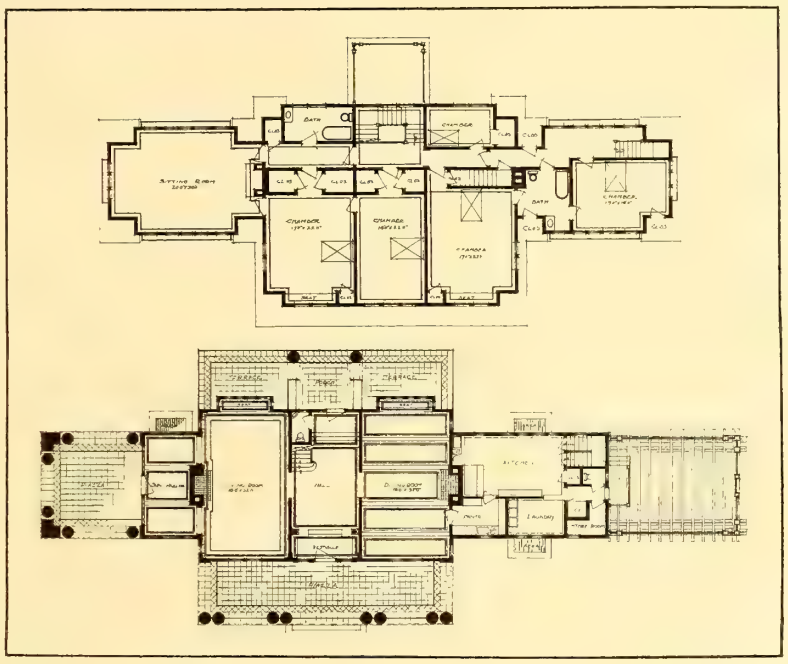
In the beautiful suburb of Bronxville, New York, one of the most charming residence sections of Westchester county, one finds the delightful house here illustrated, belonging to Mrs. Presby Bisland, which was designed by Messrs. Bates & How, architects, New York. Many of the houses in this locality are stucco or half-timber, and fortunate indeed are they in tending to harmonize, one with another, in the general architectural ensemble. The topography of Bronxville is such that many of the houses to be found there have had literally to be fitted to their sites, resulting in some particularly interesting architectural effects. The Bisland house is set within ample grounds, that are surrounded and protected by a hedge of clipped privet. The house itself is a stucco, half-timber dwelling, designed on rambling lines, though well balanced from every point of view. Its gables and picturesque chimneys and the overhang of the upper story render it one of the most attractive houses in its vicinity. It immediately suggests one of the old homes the traveler in England meets when journeying through English villages. The Elizabethan effect is further emphasized by the use of leaded glass in various windows, and in the use of square and diamond-paned windows elsewhere. One approaches the house by a short path, entering a square hall containing the main stairway. To the left a large living-room, with broad deep fireplaces and shallow windows, opens from the hallway. This bay forms a window-seat, whence one looks out upon the lawn and shrubbery through six leaded-glass windows of diamond panes. From the living-

The lawn front of the house of the Hon. Timothy L. Woodruff, at Garden City, Long Island, New York, exhibits most pleasing proportions

The drawing-room, the piazza and the dining-room of the house of the Hon. Timothy L. Woodruff, at Garden City, Long Island, New York

room a small conservatory opens out upon a broad terrace, which terrace leads down a flight of steps to the out-buildings. To the right of the hall a triangular space gives entrance to the dining-room, which is diagonal to the living-room wing of the house, as also are the service quarters that complete the dining-room wing.

An inspection of the accompanying plans will show with what ingenuity this room has been worked out, for the whole wing containing it is diagonal to the other half of the house. The dining-room has been worked out as an octagon, four sides of which have windows that face the road and the entrance, or else the terrace and the out-buildings beyond and below this.



Plans of the house of the Hon. Timothy L. Woodruff, at Garden City

The upper floor of the Bisland house contains three family bedrooms, with large bathrooms, and bedrooms in the service quarters. The family bedrooms are particularly attractive by reason of their size and the irregularity which the quaint planning of the house makes possible to give them. This house is especially interesting as a modern type of domestic architecture by reason of its having been built upon a somewhat difficult site, and yet made thoroughly charming without any concession to exigencies which have curbed the free hand of the architect in designing the plans for the house.

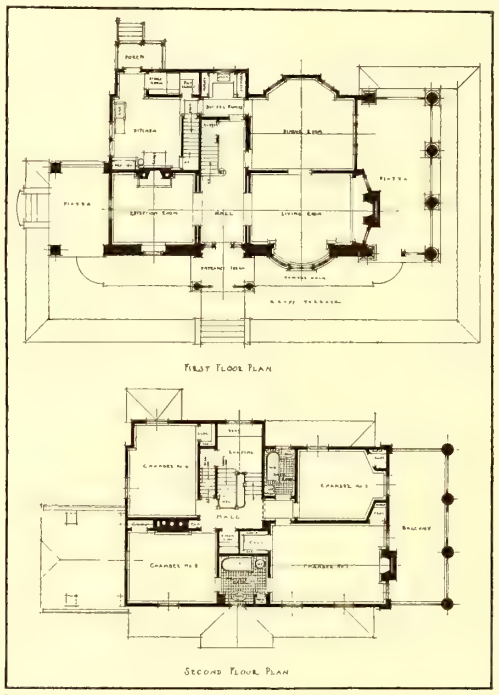
The house of the Hon. Timothy L. Woodruff, at Garden City, Long Island, as planned by Augustus N. Allen, architect, New York, presents the solution of an entirely different suburban problem, inasmuch as the country at Garden City is almost flat land. This house is surrounded by grounds so ample that the place might almost be called a country estate. In style the architecture

The suburban home of John W. Charlton, Esq., at Bronxville, New York, presents an exterior at once dignified, inviting and homelike

The enclosed lower balcony porches of the Charlton house

A corner of the well-planned dining-room, Charlton house

is an adaptation of the Dutch Colonial and is particularly suitable for a Long Island house, since here the Dutch influence was very strong in the early days of New York's history, and even to this day some of the most interesting of the original old Dutch homesteads and farmhouses are to be found remaining. The gambrel roof of the Woodruff house is the chief feature of what has come to be known as the Dutch Colonial style. It is interesting to note that it is wholly unknown in Holland, and it is thought that the thrifty Dutch in Colonial America invented it in order that they might have a house of one story and a half still containing space almost equivalent to two full stories, thus avoiding the tax levied in those days upon all two-story buildings. In the Woodruff house the roof is so high in pitch that two floors are made possible within the gambrel, and the necessary dormers have been so treated that they do not interfere unduly with the horizontal lines which are so essential to architecture of this character in attaining right proportions.



Plans of the house of J. W. Charlton, Esq.

The roof comes down over a broad piazza, in which respect it is precisely like the roofs of some of the old Dutch houses not far away from its location, and the wings, which are necessary, preserve the roof lines, that make the entire exterior consistent and harmonious. The planning of this house carries out to a great extent the Dutch idea. A very broad hall divides the floor area and opens at one end upon the broad entrance piazza, and at the other upon an equally broad terrace. A home of this kind in the old days contained a few very large rooms, rather than a great many small ones, and here the rooms, although sufficiently numerous, are very large—living-room and dining-room being the full depth of the house. Here the rooms open into each other by wide openings, and from the dining-room one may see across the hall into the broad living-room, and then through other openings into a wide piazza flagged with brick.

The planning of the upper stories is quite as pleasing—large, spacious bedrooms, plenty of baths, and a large sitting-room, and over all is still another floor with ample quarters for servants. No effort has been made to adhere to the Dutch style of interior treatment, but the woodwork has been carefully planned, ornament sparingly used, and the simplicity of furnishings, together with the unusual size of the rooms, produces the useful

A house of unusual dignity for its proportions, at Westfield, New Jersey

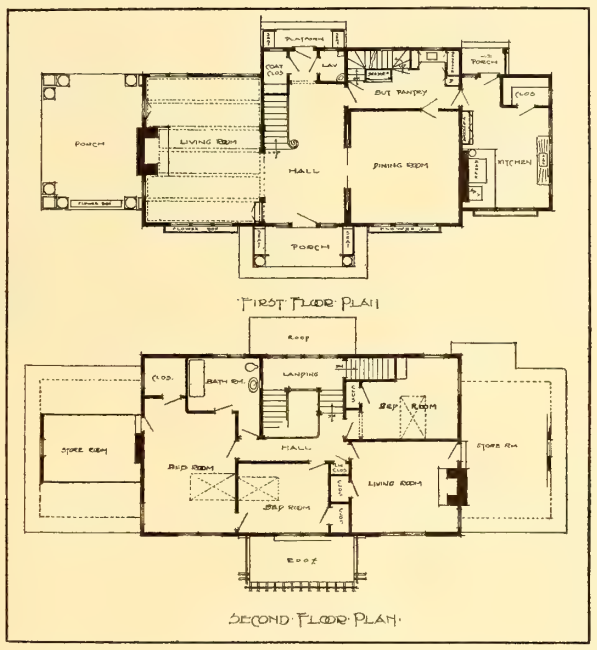
End of the living-room in the interesting house of C. C. Beard, Esq.

The country home of G. M. Pinney, Esq., at Dongan Hills, New York

The Pinney house is one of the most attractive homes on Staten Island

and dignified result which belongs to a country home of this size.

The interesting house of John W. Charlton, Esq., Bronxville, New York, planned by O. J. Gette, architect, is an adaptation of a farmhouse motif and suggests certain affiliations with what is known as the Pennsylvania Dutch style of architecture, particularly the broad "hood" which is carried across the windows of the lower floor, the paneled wooden shutters and the dormers, with their graceful arrangement of window panes. The house occupies a site in rugged, hilly country, where rocks and boulders are often pushed up through the soil. Such boulders are often covered with Ivy or Creeping Phlox, but here a very simple treatment proves interesting and appropriate. The house is placed against a background of fine old trees and is of frame, excepting part of the first story, which is of stone. Perhaps the most interesting single feature of the exterior is the broad piazza with balcony above. The treatment of this end of the house, with its tall white columns and detail of balustrade, suggests a plantation house of the Louisiana or Mississippi type. The floor plans are very simple and direct—a broad entrance-hall, reception-room, living- and dining-rooms and kitchen below, and four bedrooms and bath on the floor above, and the garret provides rooms for the maids. In this house, as in most suburban and country homes now being built, the architect has provided an out-of-door living-room, or veranda, entirely apart from the porch which marks the entrance. This adds greatly to the comfort and convenience of the family as well as of the arriving guest.



The floor plans of the house of Alfred Cluthe, Esq.

The house at Westfield, New Jersey, here shown, suggests the New England farmhouse type. Its proportions are accurate, its lines severe and, like its New England forbears, its slight touches of decoration mark the entrance to the house, which is approached from the street by a straight walk of brick, which is bordered by a low hedge of box. No frills or fads here—no gypsy kettles filled with blooming geraniums! But the hedges are closely clipped, the lawn duly shorn, as befits the surroundings of a house of this fascinating type. The Beard house, A. L. C. Marsh, architect, New York, is of the kind which might or might not be surrounded by ample grounds. It does not require them, and would be exceedingly pleasing had it just sufficient space for the trees and the amount of shrubbery

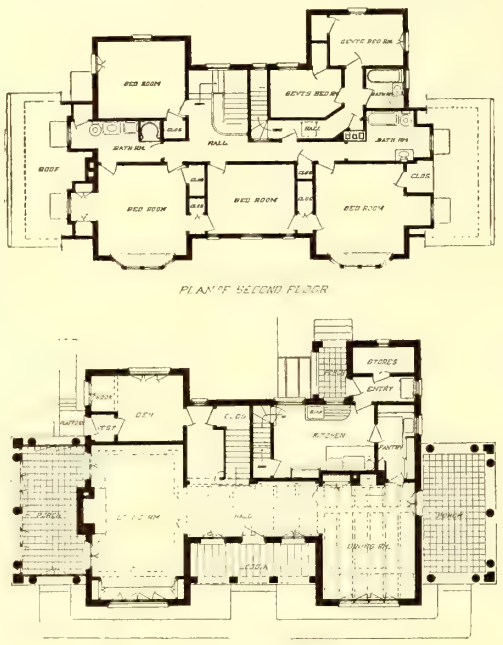
The effect obtained by shingles of a thatched roof lends a decided charm to the house of Alfred Cluthe, Esq., at Glen Ridge, New Jersey

Front of the interesting stucco house of Mrs. Valentine, at Bay Ridge, New York

The Valentine house is one of the most successful houses of its type on Long Island

necessary to create what might be called a "setting." For this reason it should be carefully studied by the homemaker who has not a great deal of space to build upon.

Upon the high ground of Staten Island, G. M. Pinney, Esq., has built a charming home, planned by Kirby & Petit, architects, New York, who must have drawn their inspiration from certain old houses built by the early Dutch or English settlers near Hempstead, Long Island. These old homes are models of austerity and severe dignity, but in the Pinney house all of this austere dignity seems to have been preserved, with the addition of just enough decoration to relieve its uncompromising exterior. The designing has been carefully done, and with such fidelity to tradition that it pleases without one discordant note. The house is of frame, with well-studied fenestration and well-planned porches and chimneys. One can hardly imagine a house of this type being provided with an ample array of porches and verandas without considerable violence being done to tradition, but here the arrangement is so good that it is happy indeed. The floor plans of the Pinney house fulfill every promise made by the broad simple expression of the outside. Like the old farmhouses from which it has been adapted, it is divided by a wide hall with an entrance at either end. The main floor is divided into reception-room, library, dining-room, and the usual service quarters, and the upper floor contains four large bedrooms with two baths, and two bedrooms and a bath for the maids. One small point of excellence in design should be especially noted. This house is so well provided with an unusual amount of porch and veranda space that to add to the wing another porch for the servants would be to overload the building with verandas. The place by which the little piazza for the servants is modestly screened and covered by the upper story is so charming that it should be emphasized here. Staten Island is placed between the Atlantic Ocean and New York Bay, and in many places affords broad sweeping views across hills and plains and bodies of water, and this beautiful house seems to have been planned with special fitness to its location. There is not a direction toward which its verandas do not afford a view.



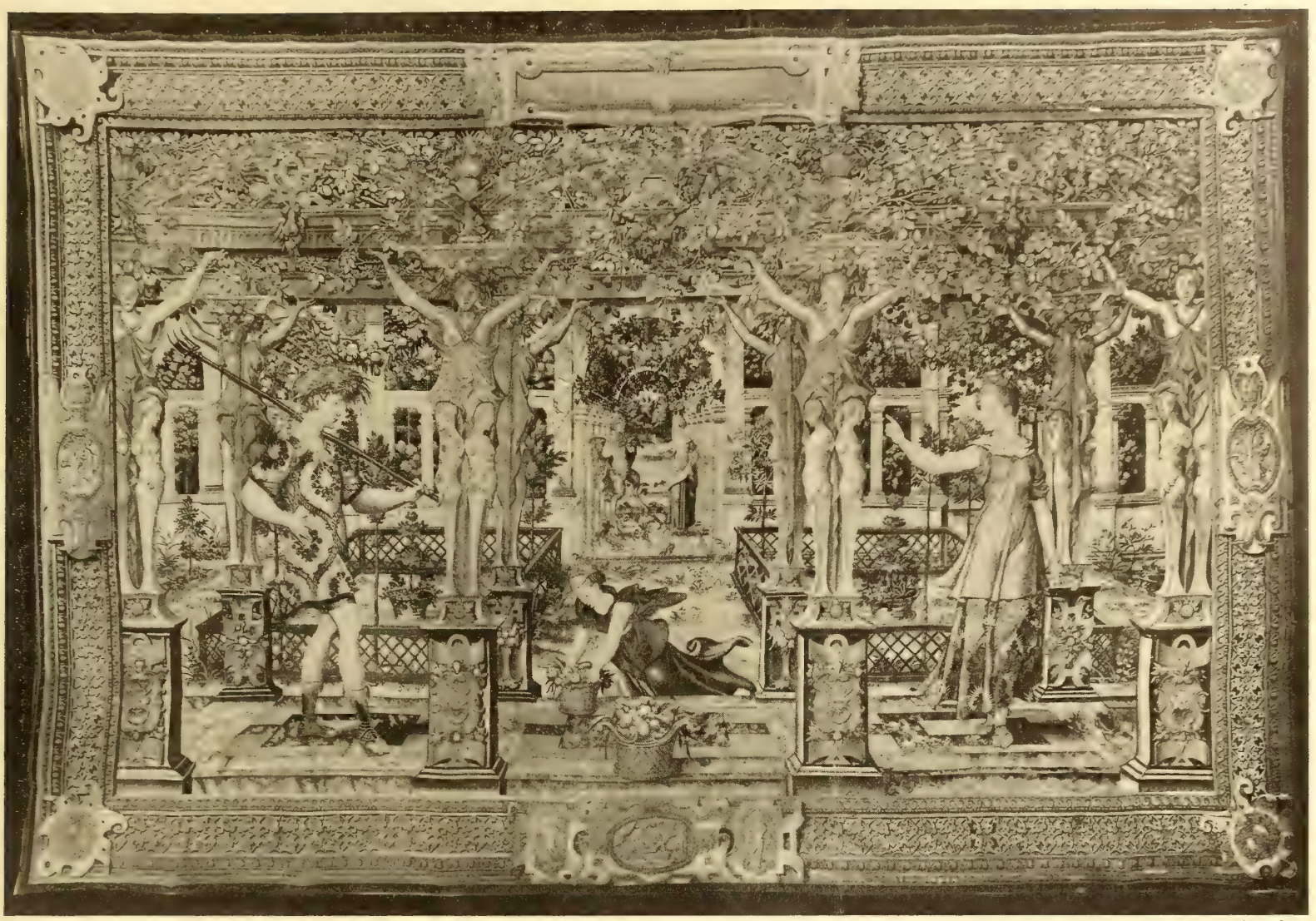
Floor plans of the Valentine house

The modern English type of suburban house is almost sure to be successful if handled with reasonable restraint. The home of Alfred Cluthe, Esq., at Glen Ridge, New Jersey, is very interesting, and there is scarcely a part of the country in which such a house would not be suitable. The Cluthe house, D. S. Van Antwerp, architect, Montclair, New Jersey, is long and narrow, placed lengthwise with the street, which makes it appear to the greatest advantage. The walls are of stucco, and the roofs are of shingles so applied that they present much the appearance of thatch. Two wings, one containing the kitchen and one a screened piazza, are so planned that they extend the main building and balance the composition. The trellises at each side and over the windows of the main floor agree completely with the character of the building, and the "curves" in the cornice line offer just the variety required to avoid being monotonous. This house would be beautiful anywhere, and it represents a type which should be more widely employed in suburban building.

The house of Mrs. Valentine, designed by Messrs. Slee and Bryson, architects, Brooklyn, New York, with its stucco walls, tiled roofs and arched entrance portico, may have been inspired by a study of some of the old California missions. The house is very interesting and would be almost as appropriate anywhere else as at Bay Ridge, Long Island, where it is located. The use of stucco provides a wall of sufficient texture to avoid being dull in large spaces. A stucco of rough gray or yellow is particularly successful with white painted woodwork, green blinds or shutters, and red

The brick house of Harry H. Gifford, Esq., at Summit, New Jersey

(*Continued on page 72*)



A superb Renaissance tapestry, "Vertumnus and Pomona," about fourteen by twenty feet in size, in the Spanish Royal Collection at Madrid

Real Tapestries

What They Are, and Something About Buying Them

By George Leland Hunter
Photographs by T. C. Turner

TAPESTRY is a broad word. It ranges all the way from ten cents a roll for verdure papers to ten thousand dollars a yard for the marvelous pictures woven on the high-warp looms of the Fifteenth and the Sixteenth Century. In between the wall papers and the arras come numerous printed, painted and loom-figured textiles that, on account of their resemblance to real tapestry —often remote—have acquired the same name. Consequently it is not strange that confusion exists in the minds of many as to what real tapestry actually is, especially as dictionaries and encyclopedias almost without exception define the word incorrectly or incompletely, while its trade meaning varies according to the shop in which it is found.

Several years ago the writer was invited by an intending purchaser to visit an antique shop to pass on the genuineness of what purported to be a Seventeenth Century Gobelin tapestry, declared to be worth $10,000. While the dealer disclaimed all expert knowledge of tapestries and was not ready to guarantee the attribution, the eagerness with which he pointed to the woven signature, *Ch. Le Brun Pinxit,* and the willingness with which he introduced references to persons and books likely to spur on the hesitating purchaser, showed that he was either extraordinarily ingenuous—which antique dealers seldom are—or was trying to perpetrate a gross fraud without technically violating the law. The dealer was indignant and threatened violence when the writer stated that the tapestry was machine-made and worth about twenty-five dollars. The purchaser covered our retreat, incidentally expressing his opinion of the dealer. Recently I related the anecdote to the manager of a house that imports many of these Jacquard tapestry panels, expecting him to be as surprised at the customers ignorance and the dealer's dishonesty as myself. Imagine my amazement when he retorted: "Wha'd yer wan'der butt in on der man's business fur? He had a ridt to get what he could. Lodts of the tealers magke good money on dese dapestries." He then went on to express an unflattering opinion of writers who give illustrations and prices that tend to make the public less gullible. Indignant at his attitude, and enlightened by it, I have since made it a point to investigate the methods of distribution of these tapestry panels, and have discovered that a large proportion of them are sold to persons who do not understand what they are buying, at prices that are extortionate. They are an important source of revenue to the cheap and tawdry auctioneers of bric-a-brac and what are called "art" objects for the home. And, as instanced above, they are a treasure trove to the dealer in bogus "antiques" and second-hand furniture.

Only in a few of the large establishments is it possible to purchase these Jacquard tapestry panels at a fair price, from a stock that is large enough to give reasonable choice of designs and sizes. Even there, few or none of the salesmen have ever seen a real Gobelin or learned to understand the difference between real tapestry and imitation. So the writer is confident that those behind the counters, as well as

This Gothic tapestry, and the ones shown at the bottom of this and of the facing page, were originally woven for bed hangings. They are in the Spanish Royal Collection and measure about thirty inches by eleven feet

those in front of them, will appreciate the attempt here made to present the points of difference, with illustrations that effectively supplement the printed story.

First, as to what constitutes real tapestry. There have been many poetic descriptions glorifying it with the iridescent beauties of the rainbow, and the rich tones of sunrise and sunset; but such descriptions are of little help in deciding whether a particular textile is or is not a real tapestry. Only a definition based on weave can do that. It is the weave that makes the difference.

A real tapestry is a fabric in plain weave with warp entirely concealed by the weft, which is of uniform thickness, and is *exactly alike on both sides,* except for the loose threads on the back that mark the passage of bobbins from block to block of the same color. With some exceptions, it is also a rep fabric—that is to say, it has a ribbed surface—and in weaving open slits are left where two colors meet parallel with the warp.

This sounds harder than it really is. If the fabric is ribbed with from seven to twenty-four ribs to the inch, is of uniform thickness and exactly alike on both sides, with the characteristic open slits, then it is a real tapestry. If the threads that float loose on the back are parallel instead of zigzag, then the fabric is not a real tapestry, but a broché tapestry, with body that is thicker where figured. The loose threads on the back are not a necessary criterion, for they can easily be clipped close, leaving the back exactly as if it were the face showing through. This is sometimes done to ancient tapestries, which are then mounted back side out, like two of the famous pieces of the "Seven Sacraments" series of the Fifteenth Century tapestries in the Metropolitan Museum, New York, in order to show the colors, that have faded less on the protected back than on the long-exposed face side.

A Gothic tapestry, "Starting for the Hunt," four by nine and a half feet, in the famous Hoentschel Collection now owned by Mr. J. Pierpont Morgan and exhibited in the Metropolitan Museum of Art, New York

Between furniture-tapestries and wall-tapestries there are a number of usual but not vital distinctions. The latter are comparatively large, with coarse *horizontal* ribs, and tell a story. The former are comparatively small, with fine ribs, *either vertical or horizontal,* and with designs that are primarily decorative. Of wall-tapestries, wool is the basic material, with gold and silver to add richness and silk to increase high lights. Of French furniture-tapestries silk is the favorite material, with wool to serve as background and to supply the low tones.

The first step in learning how to buy real tapestries is to learn where to buy them. It is foolish to seek fine china in a five-cent store, and it is equally foolish to look for important tapestries in ordinary shops. Tapestries are in a class by themselves, and even the furniture coverings are rather above the heads of general dealers, who are less able than a few architects and decorators and connoisseurs to see the superiority of an Aubusson set—five pieces, covering sofa, two armchairs and two side-chairs—at $1,400, over a Belleville set at $950, or a Nimes set at $700. Most of the business in real tapestries—furniture coverings, as well as the vastly more important wall hangings—is done through auction-rooms and decorative shops—*not* the average auction-room, and *not* the average decorative shop—just a few that, on account of their high reputation for straightforwardness and quality, have as regular clients persons who can appreciate good things of the sort. Among important tapestries sold at auction in New York city during the last few years were those belonging to Henry G. Marquand, Stanford White, Charles T. Yerkes, James A. Garland, and Henry W. Poor. One of these, sold at the Yerkes sale, a Gobelin on the subject of "Vulcan and Venus," designed by Boucher and woven by Andran, brought $17,700. For three or four days before such sales begin opportunity is given to examine the tapestries at one's leisure, and the catalogues supplied are not intentionally inaccurate. But they are seldom as complete as they should be. Perhaps that is why the tendency is for imperfect and damaged and artistically inferior tapestries to sell for more than they are worth, while the superior examples sometimes sell for less than

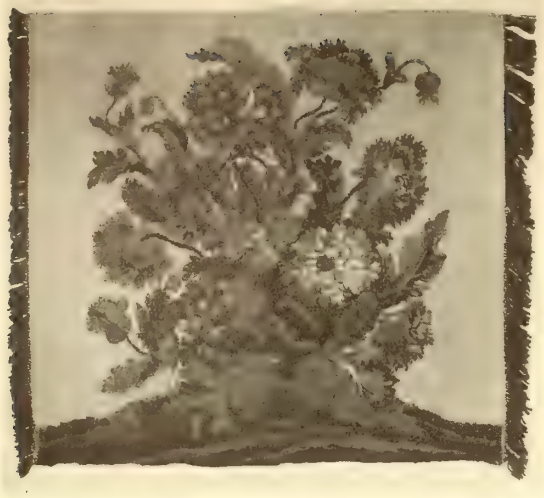
These two illustrations show the front and the back of an Aubusson chair back, woven in silk and wool. Note the irregularity of the floating threads, which if removed would disclose the same design, reversed, that appears on the right side of this tapestry. A genuine example of this sort with back to match would cost $400

they are worth. Out of twenty large tapestries the writer recently examined in an auction-room, seventeen had never been especially good, while the other three were so badly repaired as hardly to merit house room. Herein lies a lesson that the amateur of tapestries should take to heart. Mere age counts for little. The value of an inferior work of art does not increase as the generations pass, although the price paid by ignoramuses sometimes does. It is the tapestry, or rug, or chair, or table, that artistically excels which multiplies in value more rapidly than the interest on money, and at last is enshrined in the palace of a collector, in the museum of a great city or nation.

The only museum in the United States that contains a collection of fine tapestries to an extent worth considering is the Metropolitan Museum of Art, New York. Compared with the forty splendid pieces now displayed on its walls, the collections of the Boston and Chicago art museums—as well as of the Metropolitan Museum itself five years ago—are insignificant. The collection of books on tapestry in the library of the Metropolitan Museum is also large and important.

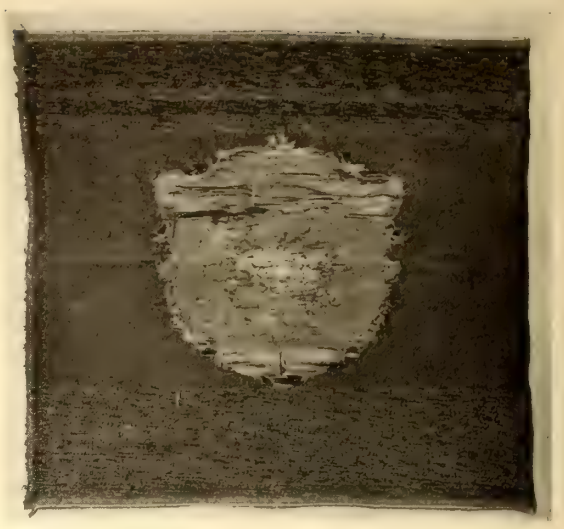
The prize tapestry in the Metropolitan collection is one in the Gothic style, lent by Mr. J. Pierpont Morgan and called the Mazarin tapestry, because tradition says that it once belonged to the famous French Cardinal who chastened the youthful haughtiness of Louis XIV. The subject of this tapestry, which is partitioned after the fashion of a three-fold screen, with Gothic columns between the leaves, is "Christ Proclaiming the New Dispensation." The Christ is seated on a throne in the upper part of the middle panel, with angels on each side of Him, one bearing a long branch with lilies, symbolic of the Church; the other a sword, symbolic of the State. Below are two groups of worshippers, the Church group headed by the Pope and the State group by the Emperor. A figure representing the Synagogue of the Old Dispensation appears on the right, blinded, with broken sceptre and shattered tablets of the Mosaic law, while the State of the New Dispensation is represented by the Persian King Ahasuerus (Xerxes) and Esther. A figure representing the Holy Catholic Church of the New Dispensation appears on the left with crozier and chalice, while the State of the New Dispensation is represented by Emperor Augustus, to whom the Tiburtine Sibyl announces the coming of the Messiah. Technically, this is one of the most wonderful, perhaps the most wonderful, tapestry ever woven. Certainly the flesh tones of faces and hands and of the tiny nude figures of Adam and Eve, and the silver tones of hair and beards, and the gold and jewels of the costumes are marvelously expressed.

Almost in the same class as regards excellence of weave are two Renaissance tapestries illustrating the "Story of Herse," lent by Mr. George Blumenthal. They were woven in Brussels by Willem van Pannemaker, whose woven signature, together with the Brussels monogram, appears in the border. The borders are rich with gold in basket weave, and the one of the two tapestries that show the "Bridal Chamber of Herse" is almost equal to the great Gothic tapestries as regards the suitability of the design for interpretation on the loom. Tapestries like these, however, are beyond the reach, even at present prices, of all but the greatest collectors, and therefore the writer would call attention to other tapestries, excellent duplicates of which can be bought or reproduced at prices that make them available more generally for adorning the home. At this point I should like to remark that the nouveau riche dog-in-the-manger spirit which locks up many famous paintings in



A "double-cloth" tapestry chair back. The texture is most interesting and pleasing

An old Flemish verdure tapestry. About four by six feet in size



This shows the back of a tapestry seat that is not a real tapestry in weave, but a broché

private galleries, without affording the public an opportunity to see them, is manifested to a much less extent by those Americans whose good fortune it is to possess fine tapestries. Perhaps they are influenced by the example of Leo X, who left with the weaver, Pieter van Aelst, in Brussels, the cartoons of the tapestries designed for him by Raphael, with the result that duplicate sets were woven for all who had the taste to select and the money to pay. It is important for the revival of the art of tapestry weaving that every opportunity should be afforded by owners of Gothic tapestries to those who wish to copy them on the loom, and the writer is glad to note the tendency of American collectors who possess historic examples to be very substantially generous in this respect.

Among the Gothic tapestries at the Metropolitan Museum especially suited for reproduction to-day are two, for instance, from the famous Hoentschel collection, lent to the museum by Mr. J. Pierpont Morgan. One of these, that pictures "Jesus Among the Doctors" and the "Marriage at Cana," is 5 feet 3 inches high and 12 feet 6 inches long. It is the "Marriage at Cana" that I suggest as affording the best opportunity for the modern weaver to attempt to emulate his Fifteenth Century forbears. The composition of this scene is most interesting. The coloring of the tapestry is extremely simple, and the weave is masterful without being intricate. In copying a tapestry like this a weaver would learn more than most weavers now know. This dates from the age when tapestries were still line drawings, with long slender vertical hatchings (spires of color) that combined with the cross-ribbed weave to produce the most interesting and unique texture that the world has even known.

Also interesting for the purpose of modern reproduction would be the Gothic "Departure for the Hunt," likewise lent to the museum from the Hoentschel collection. It is 10 feet high by 3 feet 11 inches wide, and pictures a forset of oaks with floriated ground. A page and three valets lead the way. Two of the valets carry hooded falcons. On the right a white horse, above whose head appear the busts of a lord and a lady half hidden in the foliage. Other figures on the left. In the foreground there are dogs. A tapestry like this is a thing of beauty and a joy forever, and deserves reproduction not only for the training in technique it would give the weaver of to-day, but also, and especially, for its intrinsic merit. It is worth a multitude of "counterfeit arrases," which is what they called painted imitations of tapestry in the Fifteenth Century, real arras being, of course, real tapestries, called arras from the now French, but then Flemish, city of Arras, that was long the center of production of high-warp picture tapestries.

The oldest, and on the whole the most interesting, tapestries at the Metropolitan Museum are the five fragments containing seven scenes from an early Fifteenth Century tapestry, originally containing fourteen scenes, illustrating the Seven Sacraments in their origin and also as celebrated contemporaneously. These tapestries, also from the Morgan collection, were correctly named and described for the first time in my article in the Burlington Magazine of December, 1907. Though much repaired, they are splendid examples of technical perfection in tapestry weaving, and point out the path that weavers should follow in attempting to revive the glories of the past.

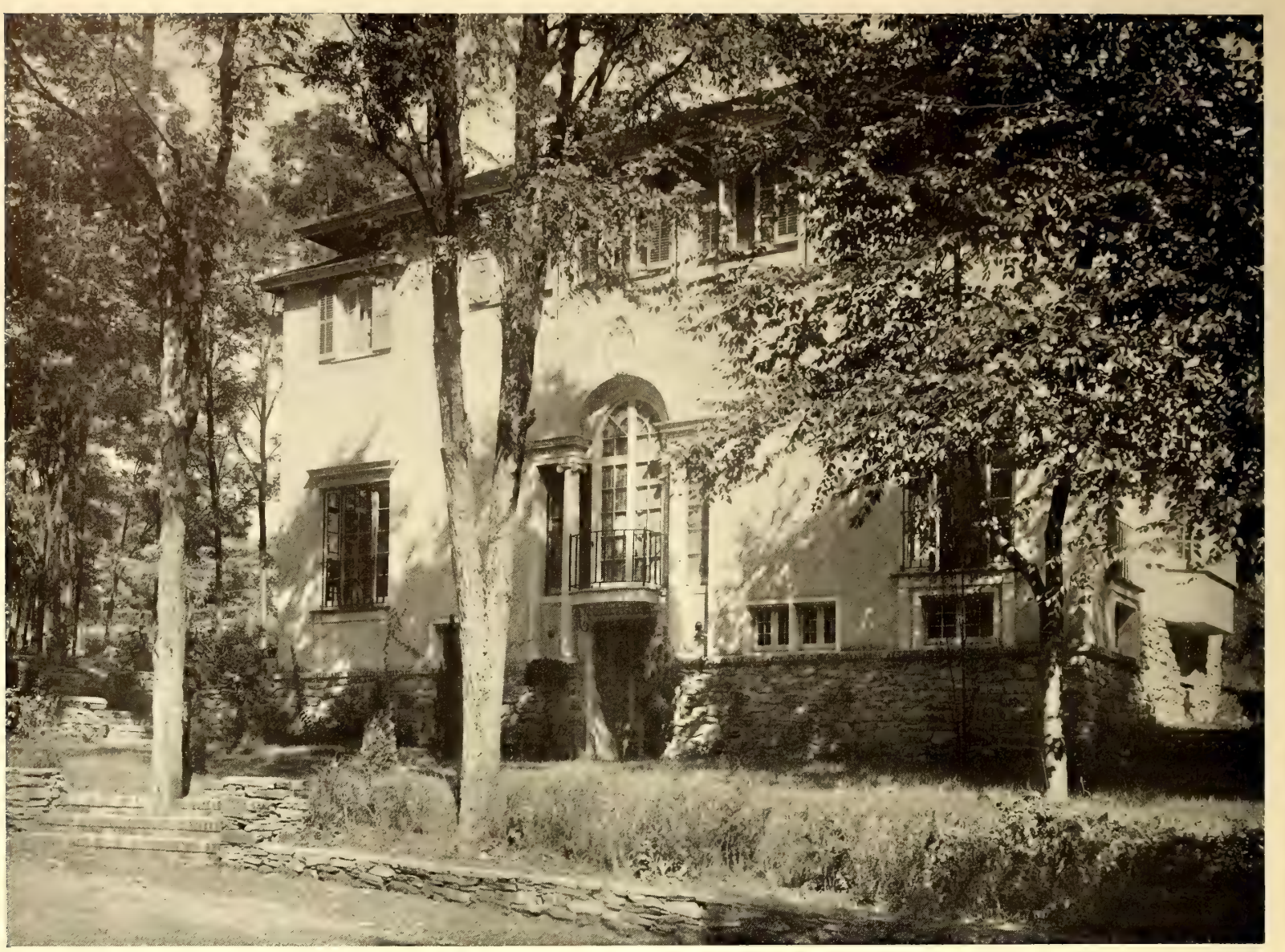
One of the scenes, "The Marriage at Cana," from a Gothic tapestry in the Hoentschel collection, belonging to Mr. J. Pierpont Morgan, and exhibited in the Metropolitan Museum of Art, New York

A large proportion of the real tapestries that one finds in the shops are from Aubusson looms, and whether antique or modern, they are usually in the style of the Eighteenth Century—rustic and pastoral scenes with verdure or landscape backgrounds, and with narrow verdure or woven-frame borders. One reason for their popularity is their size, which is comparatively small and adapted for display on the walls of houses as they are built to-day. Another reason is that the styles of Louis XV and of Louis XVI, as expressed in tapestry, harmonize with most modern English as well as French interiors—Louis XV being preferable with Chippendale chairs and Baroque or Rococo backgrounds; Louis XVI with Hepplewhite and Sheraton and Adam designs. A third reason is the price, which is less, because

(*Continued on page 67*)

Making the Corner Attractive

THERE are many ways of making the corner of a room attractive. The illustrations here given suggest a few of them. Of course, one never wishes to spoil the symmetry of a well-planned room by any "afterthought" that mere ingenuity and not good taste suggests. Therefore, we can hardly expect to go about our rooms cutting off corners simply for the sake of adding to them some architectural feature, such as a fireplace, a china closet, or a bookshelf. Nevertheless, there are many times when the utilization of corner space would prove a means of enhancing the beauty of the room, bearing which in mind the examples of corner treatment here shown have been selected as representative of what one may accomplish in this respect. There is, for instance, something particularly attractive about the corner fireplace. The cosiness of the sort of seclusion one has a sense of, in being within the space formed by the walls at right angles is, in itself, enough to encourage one to place a fireplace in such a manner as to make it pattern after the proverbial chimney corner. Of course the placing of a fireplace in a room of extended proportions is hardly advisable, since the corner fireplace usually best adapts itself to the small room. In connection with the dining-room corners one naturally thinks of a china-closet designed after the Colonial fashion in such matters as being particularly appropriate, but here the problem of filling the corner is almost the reverse of the fireplace rule, for corner china-closets appear best from an architect's and from a decorator's view when placed in a large room instead of in a small one. Well placed bookshelves, especially built in ones, likewise lend themselves to making a corner attractive, as one of the illustrations here reproduced will suggest to the modern homemaker.



The front of the house of John H. Phillips, Esq., at Mohegan Park, Yonkers, New York, designed in the Italian style

An Architect's Own House

By Rutherford M. Nesbit
Photographs by T. C. Turner

WE find many architects to-day whose own houses are marked by their personal style, unhampered by restrictions imposed by clients, and this serves to make them distinctive. They may be Colonial, English, or Italian in character, but whatever they are in style, they express the individuality of the designer as perhaps few other sorts of houses do. Although the first question the home-builder planning for a new house appears to be in the habit of asking himself is, "What style of house shall I have?" it would be far more wise for him to let the character of the site whereon he plans to build suggest the style, or, if he is determined upon a style, to select a site that will fit it.

The romantic quality of the splendid and stately Florentine villas, standing as they do among hills, suggests at once the type best adapted for the hillside country house here illustrated. There is no doubt that Mr. J. H. Phillips was influenced by the impressions he received while studying Italian domestic architecture in the Tuscan countryside around Florence, Italy, where one finds some of the loveliest villas in the world, when he designed the charming studio house here illustrated, which he designed and built for himself at Mohegan Heights, Yonkers, New York. The house is set upon a hill slope, terraced on three sides, the upper garden terrace being practically built at the level of the main living-room floor, which looks out upon the front of the premises, marked by an avenue of Locust trees. The house is not large, being only twenty-six by forty-eight feet, and it is placed some thirty feet back from the tree line.

An excellent window detail

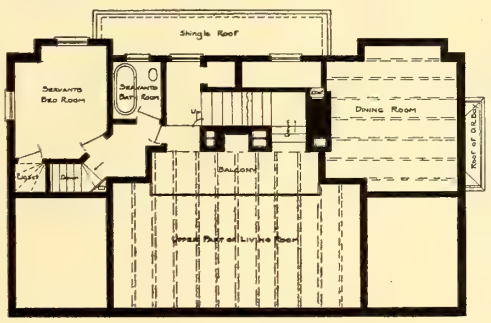
As one approaches from the avenue, over the brick steps and walk, the simple and charming design of the main front is most impressive. This front has indeed a Florentine quality, while the corniced loggias at the ends, with their heavy consols beneath the sills, are set far apart in true Tuscan fashion. The Palladian window of the two-storied living-room, designed in connection with the entrance, and the curved balcony forms a detail of great beauty in design.

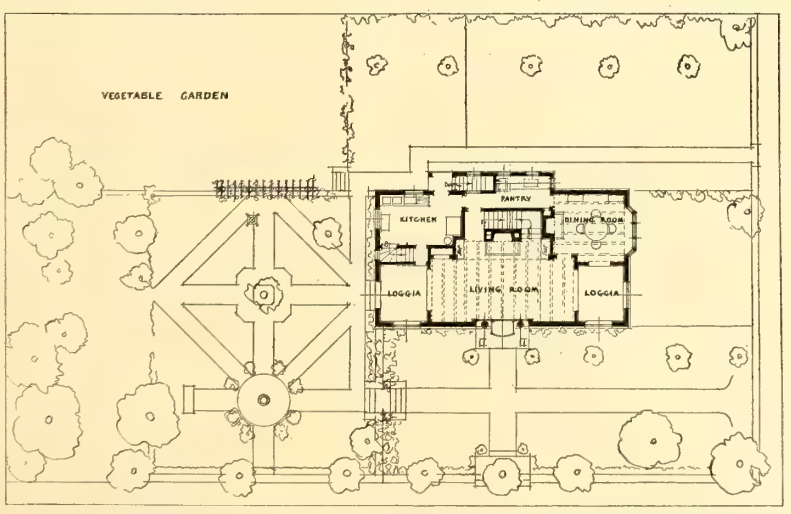
It is evident that the owner-architect of this house took genuine delight in carrying out the detail of this entrance, which is perhaps the most distinctive note in the architecture of

This view of the house of John H. Phillips, Esq., in the Italian style, shows the terrace entrance above the high basement floor

the house. The cartouch above the arch was modeled by Mr. Phillips himself directly on the stucco wall, with the aid of one of the Italian plasterers engaged upon the building. There is a ledge at the band course just above this cartouch, on which is intended to rest gaily blooming flower-pots. The large wall surfaces, of a warm colored buff stucco, white trim and the faded tone of the bluish-green blinds, with the warm tile color of the roof, give a very decorative effect, and it is also worth noting in the color effects that the soffit of the cornice was given an old-blue stain between the white painted rafter ends.

The gardens, which at the present time are but partially planted or developed, show that they bear an intimate relationship to the house, and it is probably the owner's idea to spend his hours of recreation here working out his problems; for, after all, the charm and success of the country home depend very largely upon the magic appeal of a well-planned garden, and especially true is this of a house of the villa type. It is interesting to note, in connection with the garden plans of this house, the decorative quality in the stone walls and brick steps, and also of the brick coping between the stone masonry and the stucco walls of the dwelling. This line carries around and forms the cap of the stone piers at the sides of the steps that carry the path up to the formal garden of the upper terrace. This path leads directly to the sundial and a garden seat beyond.





Ground and floor plans of the house of John H. Phillips, Esq. The basement plans, showing the reception-room on the lower level, are not given here

A glance at the floor plans will reveal a very delightful scheme of planning, and one particularly adapted for the home of an artist or of a musician. The entrance reception-room on the lower level has a large fireplace of cement and brick directly opposite the entrance doorway. The vari-colored brick and

The dining-room is one of the most beautiful rooms in the Phillips house, charming in the elegance of its simplicity, and yet thoroughly homelike

cement floor is so designed as to suggest an Oriental rug effect. The main stairs leading to the living-room floor winds around the chimney, and the dominating feature of the plan is the spaciousness and privacy of the living-room floor, which is gained by the entrance stairs coming up from the reception-room below, while it does not cut the main floor plan into two parts, as in the typical Colonial house. To live in a house with a large central living-room running up through two floors with a balcony, gives an effect of spaciousness and freedom commensurate with life in the country. In this house the same freedom is carried through the whole house, lending to the enjoyment of its occupancy.

One of the well-designed chimneys in the Phillips house

The living-room has a loggia at each end, with double-hinged casements, and when thrown open the entire southern front of the house can be made into one large room, forty-eight feet long. The west loggia opens directly into the formal garden. It also has a door leading through a pantry into the kitchen, making a delightful room in which to serve breakfast or afternoon tea. The loggias, glassed-in in winter (as they are heated), make fine conservatories. When one considers the value of the loggia in the framing of the picture of the landscape and in enhancing vistas, it is not surprising that Mr. Phillips has chosen it in the place of the customary porch.

The living-room fireplace is most interesting, with the balcony above, and the seats at the ends of the recess form an inglenook which gives a home-like air to the room, which might otherwise be rather formal because of its lofty ceiling and decorative arched window. The work on the mantelpiece was executed by the owner by designing the ornament on the fresh cement, and then cutting away with a sharp tool before the material had set. The ceilings of the living-room and the dining-room enjoy a mediæval effect not unlike those of the simple old Hollandish interiors, a result which was obtained by staining the structural beams a dark brown and plastering in between. The plaster walls were

left in the natural color, and rather rough, which give a richness in tone to the room. The trim of the living-room is cypress treated with a coat of white lead and oil and finished with a very thin coat of dull-finish enamel, which was put on thin enough to allow the graining of the wood to show.

The accompanying illustration shows a dining-room of unusual charm and beauty. The color scheme employed there is brown—a brown of soft red shades—and there is considerable variety in the unique design of the mantel, with its brick of tapestry texture. A tapestry hangs on the wall. On the latter the painting of an Italian Madonna is placed, while heavily ribbed curtains of old-blue silk, with tapestry borders at the high bay-window, which extends almost to the ceiling beams, and the antique furniture complete the decorative scheme. Casement doors open into the east loggia, which afford charming views of the old apple orchard across the way and down a road overlooking the picturesque valley.

The kitchen occupies the same relative position as the dining-room at the other end of the house, with the butler's pantry between. The servants' quarters, which is separated from the other floors of the house, is directly above the kitchen on the mezzanine floor—the same level as the balcony. From the balcony the stairs continue up behind the chimney to a landing in front of the studio door, which is four steps lower than the main bedroom floor. It is a real working studio, with a large north window, a brick fireplace and the ceiling running up to the underside of the roof rafters. At the southeast corner casement doors open into the sleeping-porch, from which a delightful view is obtained of the beautiful hillside country. From the stairhall, adjoining the studio, an open flight of stairs leads to the attic,

A view of the spacious living-room in the Phillips house

which opens on the roof-garden at the rear of the house. A dumbwaiter adjoining the chimney connects with the butler's pantry to doors at the studio entrance and on the roof-garden.

The reader will find by a close study of the accompanying plans and photographs that they have the merit of a personal style, which makes this house distinctive, and which renders it thoroughly successful as an example of domestic architecture well suited to its site. He will see that it carries out the foregleam of an attractive interior arrangement, which its outer proportions impose upon the expectant critic.

The spacious two-storied living-room of this unusually interesting house is one of its most beautiful features and well worth study and emulation

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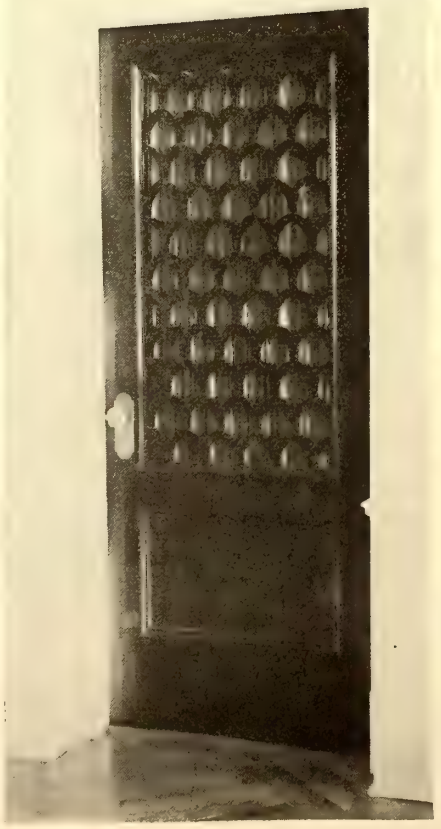

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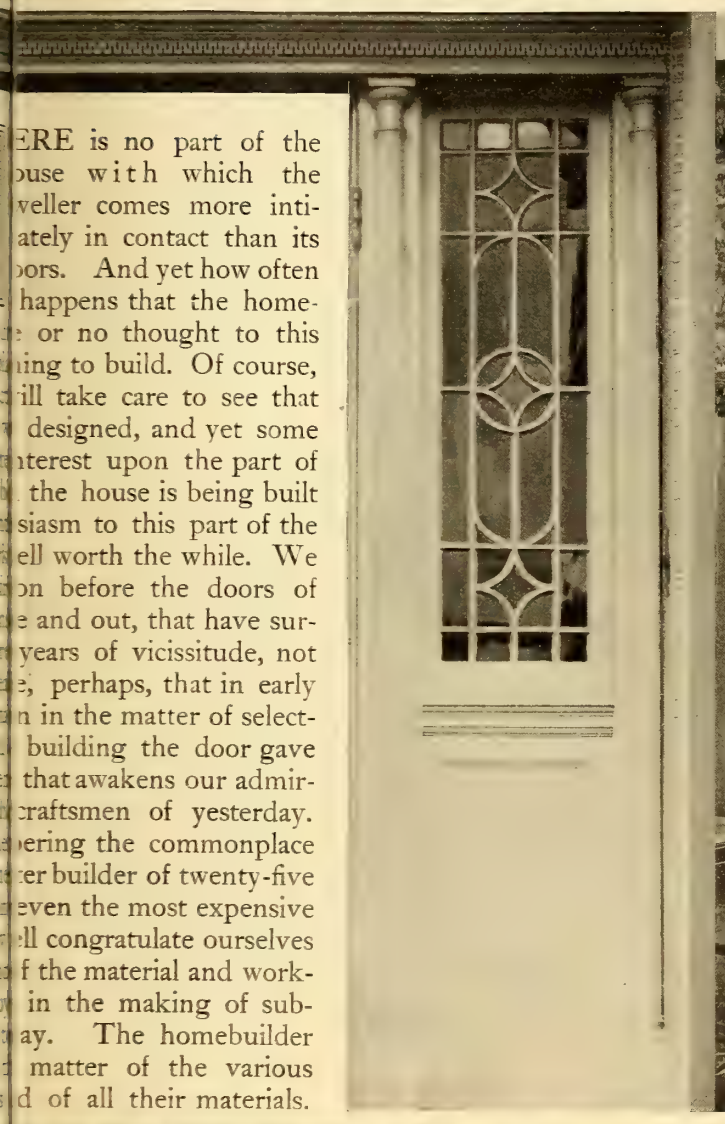
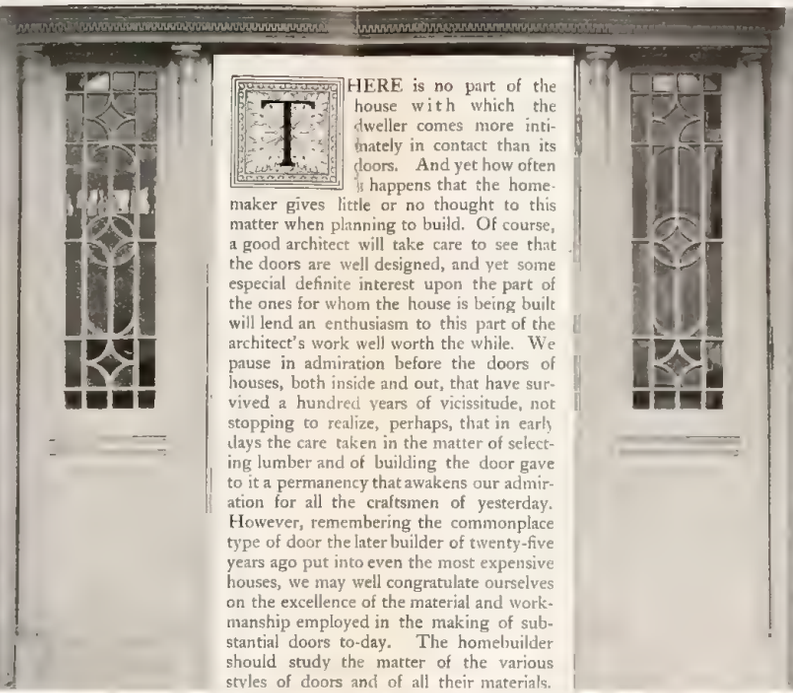


DOORS·FOR·THE·HOUSE :: INSIDE·AND·OUT



THERE is no part of the house with which the dweller comes more intimately in contact than its doors. And yet how often it happens that the homemaker gives little or no thought to this matter when planning to build. Of course, a good architect will take care to see that the doors are well designed, and yet some especial definite interest upon the part of the ones for whom the house is being built will lend an enthusiasm to this part of the architect's work well worth the while. We pause in admiration before the doors of houses, both inside and out, that have survived a hundred years of vicissitude, not stopping to realize, perhaps, that in early days the care taken in the matter of selecting lumber and of building the door gave to it a permanency that awakens our admiration for all the craftsmen of yesterday. However, remembering the commonplace type of door the later builder of twenty-five years ago put into even the most expensive houses, we may well congratulate ourselves on the excellence of the material and workmanship employed in the making of substantial doors to-day. The homebuilder should study the matter of the various styles of doors and of all their materials.

This piano, the panels of which were painted by Mr. Everett Shinn, has been well placed, both from the point of view of lighting and acoustics

Pianos in Relation to Their Surroundings

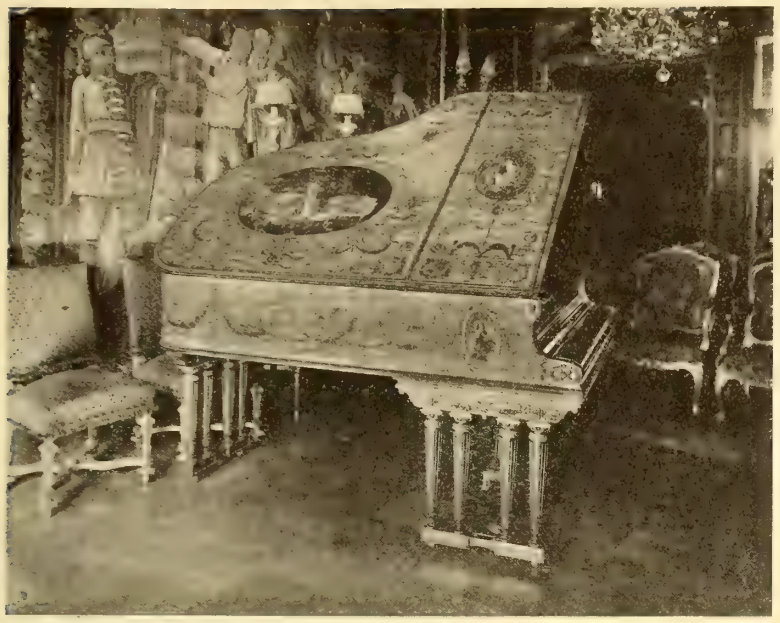
By Mira Edson

THE placing of a piano satisfactorily is not always an entirely simple matter. Whether one is considering the square or the upright, care is needed to select the place in the room which is best suited to it, and with which one can be entirely content afterwards. For this one must consider the comfort and convenience of the person who uses the piano, and also the relation of the piano itself to other articles of furniture which the room contains. The modern interest in household art has made us all susceptible to arrangement and shown clearly the importance of achieving harmony in matters of form and color.

While the placing of a piano in respect to its surroundings is important, it is even more important that the comfort of the performer be considered, and that the music itself shall have opportunity for the best possible effect. It should not be placed in a recess which would interfere with the sound. It should stand at the end of an apartment rather than at the side. Generally, it is well placed across a corner, and should not be too flatly against a wall. If possible, it is desirable that it be near a window, so that there may be a good light upon the score for day use, enabling one to read very easily.

The articles which surround a piano can be made to help its perfect relation to the rest of the furnishing. The richer and darker things which are available for this purpose generally offer the best opportunity for choice. A piece of tapestry placed upon the wall near by is one of the best and simplest ways of securing a good effect. The rich and heavy suggestion which tapestry gives accords well with a piano, each possessing a dignity of its own, while the colors of the tapestry reflect themselves in the dark polished case, modifying and lightening it. Richly colored rugs help, too, of course, and portraits seem an appropriate accompaniment, with their hint of leisure and of that luxury of taste which can revel in abundance without falling into the ornate. The piano which is most graceful in form is, of course, the grand, with its sweeping lines. These are fine in themselves, and every chance should be given to aid the effect of the curves. With the upright piano the problems are of quite another sort, but can be well solved, as the illustrations show.

Placing articles upon the top of a piano is an expedient sometimes employed to bring it into relation with other parts of the room and take away a too great formality; and its broad expanse is tempting for this purpose. There is

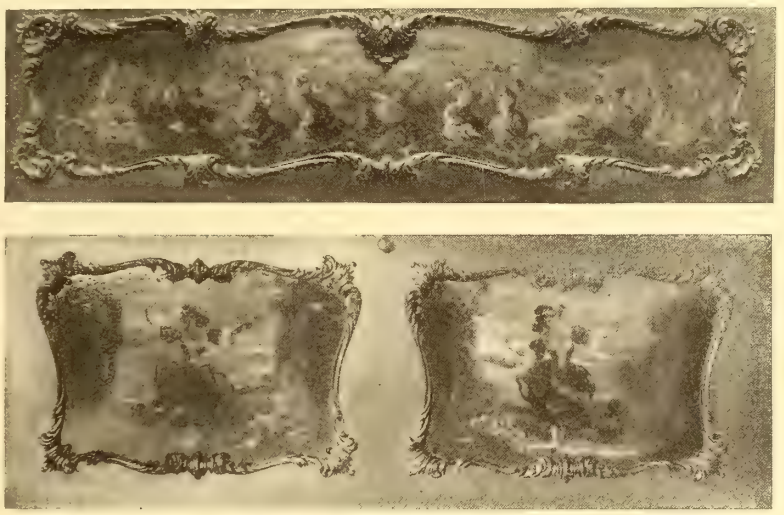


A well-placed grand piano that adds to the beauty of the room

danger here, however, of overloading, and care should be taken not to allow this. Some persons maintain that nothing should be placed upon it, since the purpose of a piano is that of music alone, and as articles interfere with the tone, they interfere with its proper use. Others, not less alive to the value of music, claim that a few wisely placed articles do not in the least mar the music nor affect the tone of the instrument.

The forms which a piano may have are decided by the necessities of the instrument itself. The outer finish and ornament, however, can be modified to suit personal taste, and in some instances these have been quite changed. The color of the case may be, for example, whatever one prefers, and any kind or amount of decoration can be added. Hardly anything, one might think, is too lovely for the adornment of a piano. In some instances the case has been of light-colored wood and was kept a light color. When this is so, any bright and delicate colors in decoration show well upon it. Even painting can be introduced in certain portions, gay and yet sufficiently subdued to the ground tones. Generally the subjects of such decorative paintings are those representing the light enjoyment of poetic romance, in which some of the French painters have excelled. The figures, here in bright draperies, laces, ribbons, move amidst a smiling and always beneficent nature, where skies are always of the bluest and flowers always in abundant blossom.

The illustrations show two pianos which have been thus decorated. Both a grand piano and an upright are shown, both ornamented by Mr. Everett Shinn—one to the order of Clyde Fitch, the other for Robert McKee. The upright, as can be seen in the picture, stands amidst articles of furniture which have a weight and dignity, and these styles are in keeping with its own rectangular lines. The paintings which form the ornament are shown here in detail. Mr. Shinn refers his inspiration for the designs to Boucher, and with a hint from Watteau. They are original with himself, however, hints merely being taken from the work of others. The ornament upon this piano, it will be noticed, keeps for the most part to the panellings, yet aiding the effect of the whole. The body-color is a dull golden color, upon which the varying tints of color in the panels play harmoniously.



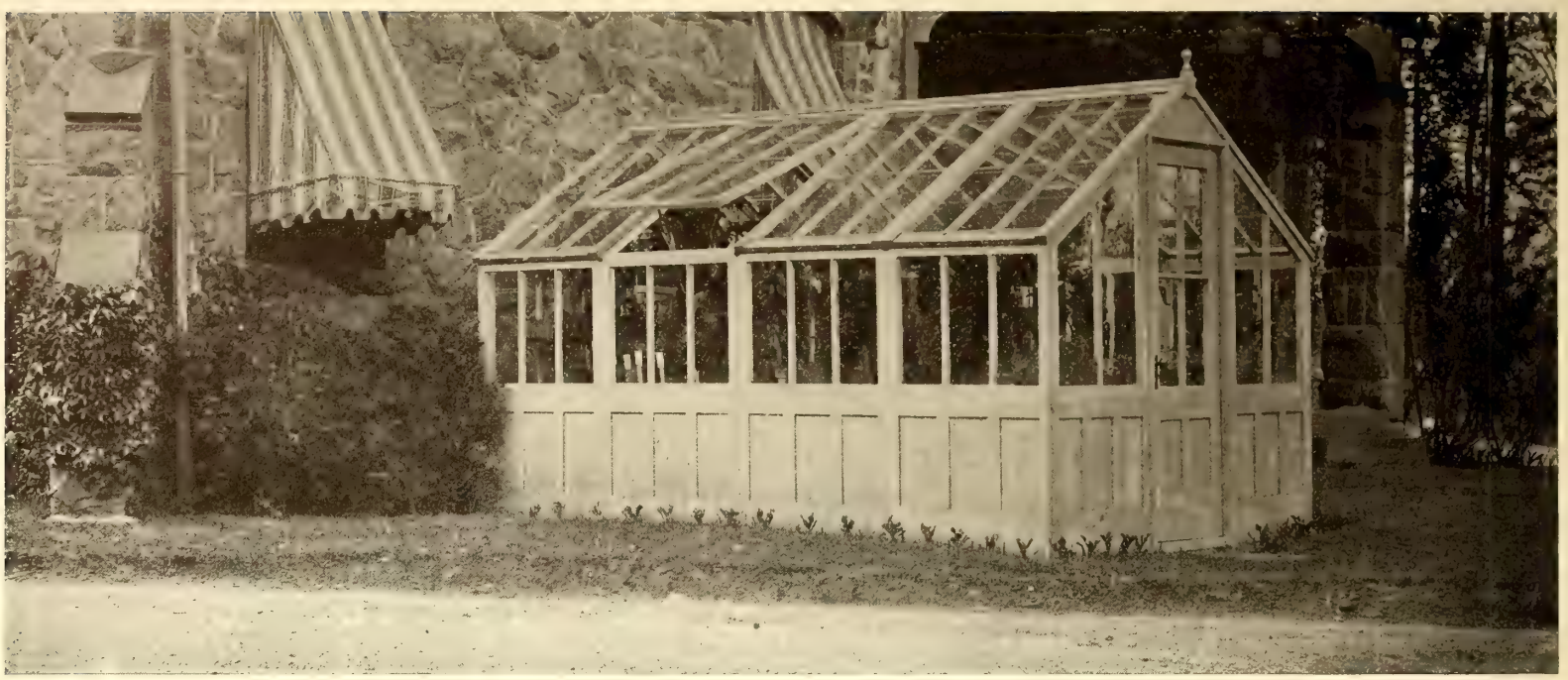
Panels from an upright piano, painted by Mr. Everett Shinn

The other piano illustrated is more ornamental as to its own form and is richly carved and decorated, and to decoration it lends itself most sympathetically. The case in this instance is of white mahogany, upon which the colors appear and melt in a delightful way. The lacquer which covers the whole gives to it a golden tone, through which the colors appear subdued yet bright. This warm and beautiful tone greatly enhances the whole effect, which is both delicate and rich in the extreme. The front view here shown gives details of the carving and shows also the garlands which form an ornamental border across the front, broken only by a small oblong panel containing a picture. Another view of the same shows it with the top raised. In this we get an idea of the work as a whole, since it allows us to see the garlands, arabesques and other ornaments with which it is profusely covered. In the medallions, which are of various sizes, are paintings which are more or less free and detailed, according to the space each allows. This beautiful piano was bought at the Clyde Fitch sale by Mr. Tomlinson.

Sketches for another piano, decorated after the same general manner, are to be seen in Mr. Shinn's studio. These he is preparing at his leisure and intends to use them upon a piano for his own home. The body-color in this case is to be an ash-gray. To obtain this light color, we are informed, the surface must first be treated in such a way as to remove the varnish, since to obtain it without this it is necessary to put in the order at the factory two years in advance. The gray color may then be put upon the natural wood, and into this carried, in a pleasing way and with much charm as to color, the gay and happy designs which are planned for it. Birds of bright plumage are to be an important part of these designs.

It is quite plain that when any piece is highly individualized, as these pianos are, there must needs be the more care that they shall be placed in surroundings which are reasonably harmonious. If the destination of the piano is known, this harmony can be secured in advance, the colors and the style of ornament being selected in reference to the desired place. The amount of decoration which is appropriate will be considered, and what is most suited can be chosen. Even a slight decoration gives lightness and grace.

This piano forms a valuable feature to the room's tasteful decoration



With a little greenhouse like this, almost anyone may grow Carnations, and make it both a delightful pastime and a most profitable occupation

Carnation Growing for Everyone

By Mary W. Mount

Photographs by Nathan R. Graves and others

CARNATION culture offers one of the most interesting and remunerative occupations to the amateur in floriculture. The plants thrive best in a dry atmosphere, and require less moisture than almost any other greenhouse flowers. The temperature in which Carnations are grown is considered a healthful one to work in, and the odor is stimulating and invigorating. Then, too, the worker is benefitted by sun baths through glass roofs and the tonic properties of radium in the earth constantly handled, making Carnation raising healthful as well as delightful.

It is claimed that a temperature of 60° Fahr. should never be exceeded in a Carnation house, and that 50° is the minimum night and 70° the maximum day temperature that the plants can stand without injury. Most growers endeavor to preserve a temperature of from 54° to 55° at night, and 60° to 65° in the day time, using more heat on a cloudy day, when the sun does not furnish all, and sometimes more than the warmth required. To the necessity of having heat evenly distributed in a greenhouse is added that of securing light as nearly as possible the same as that outdoors. Changes in temperature have everything to do with promoting or retarding the development of a flower; with making a long, strong calyx or a short, weak one, that splits and lets the petals fall raggedly as soon as the blossom unfolds. A good calyx vastly enhances the market value of a flower, and one must learn how chill and sudden heat affect it. Two main essentials in growing Carnations are plenty of ventilation and careful watering; they cannot endure moist earth or poor drainage, and require less water in Winter than in Summer.

With a little greenhouse, an amateur may keep his first year's expense below $100, or if he spends $7 to $14 for completely sashed coldframes, covering 3 by 12 to 24 feet, he should be able to raise enough Carnations in one season to defray the cost of establishing a small greenhouse the next. At least a thousand plants may be contained in a house 50x18 feet, the yield from which is ten to seventy-five blossoms to each plant in the season, lasting from October until June. Twenty-five to thirty blossoms on terminal stems is expected from a properly cared-for plant, while the modest output of ten blooms to a plant will yield the owner of a thousand plants ten thousand Carnations. According to size, variety and color, these bring from $1 to $5 per hundred wholesale, and $1 to $15 a dozen retail, from which may have to be deducted the commission man's fifteen per cent. Nearness to market enables a grower to take advantage of high prices, make two or three trips a day to market, and obtain from any city all the manure wanted for cultivating purposes at merely the cost of hauling. Flowers must be shipped with regularity to retail customers, and should be shipped in quantities to save expenses. A box larger than a trunk, and containing 120 dozen blossoms, can be shipped from states adjacent to New York to that city for forty cents, and shippers find that flowers remain fresh for days if placed in a cool cellar for twenty-four hours before shipping, with their stems plunged deep in clear water. When selecting a place convenient to market, the grower must consider whether the soil of that locality is a sandy loam, in which Carnations thrive best, and, if economy is necessary, whether the site offers a spot protected from north winds, where less fuel will be required for heating purposes and an even temperature may be more easily maintained. Out of doors the plants will bloom from August until the infliction of the first hard frost, if they are protected from heavy winds.

The lovely Carnation known as the Jessica

Twelve varieties of good Carnation seed may be purchased from any reliable seedsman for $1, twenty-five for $1.75, and fifty for $3. Seed may be planted from February to May in a mixture of loam, sand and leaf mold. They are set a quarter of an inch apart and covered to a depth of an eighth of an inch to insure regular germination. Carnations show so strong a tendency to sport that it is considered more prudent to begin with plants ready for benching in Autumn. Cutting may be propagated from September to the end of May. They should be taken from the flowering stem of a healty, vigorous plant, and should be broken off at a length of about three inches and placed in a shallow box full of sand. They like a firm-rooting medium, and this sand, as well as the field soil later, must be trampled or pounded before and after planting. Growers set cuttings about half an inch apart, with about two inches between the rows, shade from strong light until the roots start, and sprinkle the sand enough to moisten it.

Cuttings spend one month in sand, one in two-inch pots, till these are filled with roots; one in three-inch or larger pots, and then the plants are placed in four-inch pots, or boxes four inches deep, where they are set from nine to twelve inches apart and supported by a lattice of string or wire over the bench, about midway of the plants, where foliage conceals the supports. Leaving plants too long in a small pot or placing them too soon in a large one is apt to interfere with their development, and nothing helps a plant that has been placed in an unsoaked new or unwashed old pot. While in the two-inch pots, baby plants must be given light soil, careful watering, have tall tops pinched off to make them sturdier and multiply flowering stems, and all buds pulled off to conserve strength for Winter blooming.

The value of propagating Carnations by layers consists in the rapidity and certainty with which varieties can be increased without weakening the resulting plants, because the connection with the parent is not severed until the scion has roots of its own, able to provide for its wants. In this process, the novice must not cut the shoot quite through, but about half way; then, turning the knife upwards, he splits

The "Mrs. Ward" Carnation is one of the most satisfactory varieties

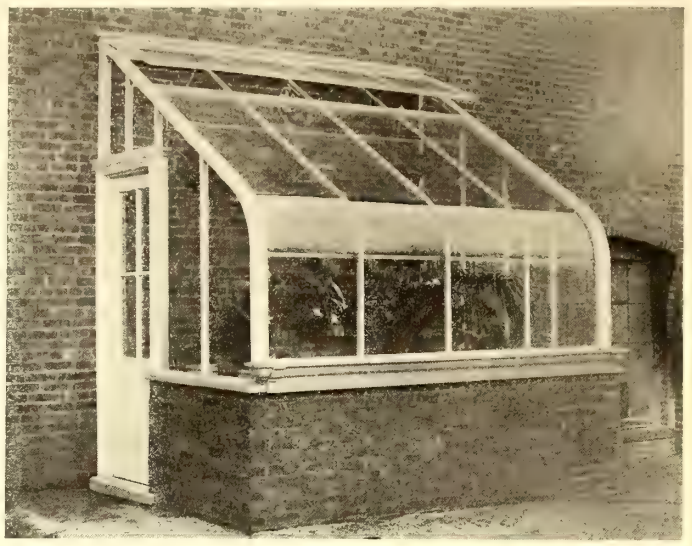
The "Pink Delight" Carnation has proved very popular with amateurs

the stalk for a distance of half to three quarters of an inch. A longer split would ruin the process. The "tongue" thus formed is gently bent outward away from the stem, inserted its full length in propagating soil, and held in place with a bent or forked twing. Soft, short shoots are best to work on and produce roots more quickly. For layering, a mixture of leaf-mold and sand makes excellent soil. Efficient drainage is secured to Carnations by a flat piece of potsherd laid over the hole for drainage, with broken shard, brick or small clinkers laid over that to a depth of half an inch to an inch. The bottoms of boxes or benches are covered in the same manner to a depth of three quarters of an inch. The best soil for benched plants consists of fibrous loam mixed with leaf-mold in the proportion of a third, and sand forming one sixth of the quantity. This, or any other compost, must be mixed and "ripened" out of doors for a year before it is put in the house benches. The stem of a plant must not be lowered in transplanting, and the soil must be pressed well around the roots. By the end of April, Carnations are established in their bench quarters or set in the open field, from nine to eighteen inches apart, where all the care they need is cultivation, water on rare occasions, and care that no moisture settles at the roots, where it induces stem-rot, which is deadly to Carnations. Plants should not be watered on cloudy days, as this invites "rust," nor in the sun, as that scalds the foliage. Very early morning is the best time to water Carnations.

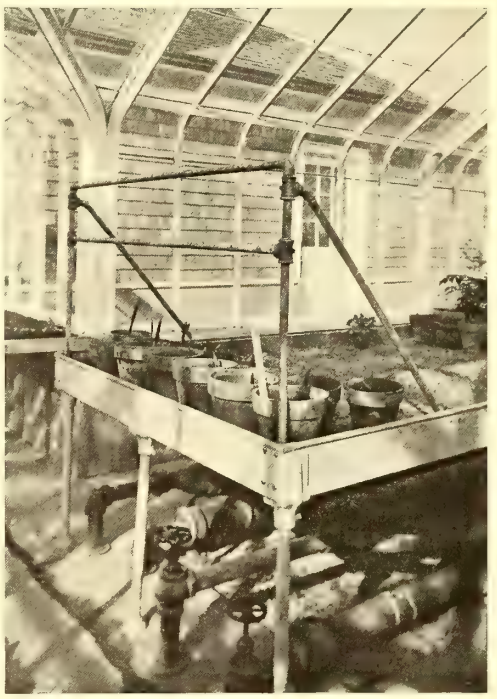
Before taking plants indoors, the greenhouse should be thoroughly cleaned and fumigated; plants should be examined in a corner of the garden, and every one affected with "rust," "spot," "rot," yellow-mottled bacteria or any other disease should be burned. After removal to the greenhouse, plants require more water and a little shading from sunlight while the roots are settling in their new soil. Root action is quick in rich bench soil, and blooms appear in four to six weeks. Disbudding must be constant if one wishes to obtain great size and long stems in flowers retained upon terminal branches. Liquid fertilizer must be given two or three times a week, and some growers inspect

plants daily to guard against insects and possible disease.

The little Carnation lean-to should, if possible, have a sheltered southern exposure in order to save fuel, while the more desirable little 9x12 greenhouse performs wonders in a sunny hollow, and, in any case, should have its gable ends to the north and south, with its north end walled up. When a grower advances to a house 18x100 feet, holding upwards of two thousand plants, he feels that the ideal size of house for Carnation culture has been secured. Ignorance in the placing of a greenhouse can occasion larger fuel bills, poor blooms, loss and trouble, but ignorance in the selection of material is apt to spell disaster. Greenhouse glass should be double thick, free from "burning" pieces that scorch plants, and well puttied in an absolutely rigid wooden frame to prevent breakage, which sometimes occurs through the contraction and expansion of metal frames. An iron-frame house, however, lasts longer, admits more light, does not warp, and costs more than one of wood. A complete house, 9x12 feet, of the best quality and fitted with benches and ventilators, can be had for $80 to $115, in sections, ready to bolt together. The price is regulated by the amount of metal in the frame. All materials used in greenhouse construction should be of the best, to obviate warping, leaks, draughts, and necessity for repairs, and all the parts should be perfectly fitted together. Including heating installation, a house 20 feet long may be erected for $250. Beginners who want to experiment at little cost, like the lean-to which forms part of the dwelling and may be heated by extension pipes from the residence; and if they purchase ready-made materials they invest in glazed and painted sash, 3x6 feet in size, and, if they object to keeping up heat in the house at night, they will insure equable heat in the lean-to by placing a separate boiler in the cellar of the residence, with hot-water pipes extending through the greenhouse. Steam heat does not pay except in large ranges of greenhouses, and is very troublesome. An oil heater, for inside water circulation, is excellent for small houses when all the products of combustion are carried off by means of a flue, but neither coal nor gas stoves can be used in a greenhouse. Little extra fuel is required to warm the lean-to greenhouse at night, and one may heat a 100-foot greenhouse for a month with one and a half to two tons of coal. Galvanized iron pipes, in eighteen-foot lengths, costing five to ten cents a foot, are generally used for cold water in a greenhouse; and cast iron, in nine-foot lengths, or lead for hot. Lead pipes cost twenty to forty cents a foot, and iron ones are preferred because more easily fitted together. Greenhouse necessities that a beginner must provide are prepared earth and fertilizer in bins, shallow propagating boxes, four-inch deep boxes for grown plants, one, two, three and four-inch pots, trowel, fork, rose-spray, watering pot, vessel in which to wash pots, tobacco leaves for fumigating, lime and sulphur for disinfecting, Bordeaux mixture to kill insects, broken flower pots, brick or clinkers for box drainage, tray for carrying plants and flowers, wire and string for supports; boxes, paper, string, knife and scissors for packing. Ordinary boxes may be converted into beds and tables, until the grower feels able to obtain durable iron and slate or all-cypress frames and tables, and beds with bottoms of extra-porous tile resting upon frames of galvanized iron. An ideal bed contains five inches of soil upon a perfectly drained bottom. A Carnation grower does not want to learn through experience that it does not pay to buy inferior pots. Prices for these vary with the pottery concern from which they are purchased. The best two-inch pots cost from $6 to $9 a thousand, and the best large ones from $15 to $20 a thousand.



A little greenhouse of the lean-to type suitable for Carnation growing



Tables for Carnations that can be adapted for small greenhouses

If one cannot afford good greenhouse materials it is better to start with hotbeds and coldframes, as hundreds of people do, and let the product of these pay for the greenhouse that follows, and to which the hotbeds form necessary adjuncts. When establishing coldframes, mats and shutters with which to cover them on cold nights and snowy days must not be forgotten.

Cleanliness, fumigation and care are all that are needed to keep the enemies of Carnations outside of greenhouse doors. To bar insects from potted plants, some florists let soot settle in water until the latter is clear, when they syringe the plants with this solution after sundown. Others dust with tobacco dust, syringe with tobacco tea, and fumigate with tobacco smoke.

In the field, Carnations must be set out in soil that has been freed by fire or lime from wireworms, and occasionally, if birds and small beasts are plentiful, the plants are sprayed with tobacco water, so as to spoil their flavor for marauders. Indoors, the enemies that may be kept out by tobacco fumigation, dust or solution are blue aphis, green fly, thrip, red spider and cuckoo spit, all of which are minute and attack different parts of the plant. It is easy to learn how to recognize and destroy these, and also how to watch for the wireworm, which requires drastic treatment; the earwig, Carnation twitter, "Spot," and gout, which must be burned with the affected plant; and the euchoris mite, that is exorcised by petroleum solution. All pests are not common to any one locality, and none need secure entrance to a well-cared-for Carnation house. Too often a novice attributes the death of a plant to one of its enemies, when the trouble has been caused by manure placed so close to the stem as to burn it. Fumigation is a simple and inexpensive process, since half a pound of damp tobacco leaves laid upon a small handful of burning wood-shavings on the floor will fumigate 500 square feet of glass. On general principles, growers usually fumigate a Carnation house once a week, and some do this twice. Carnation growing is so easy and so profitable that a novice is apt to lose sight of the fact that ceaseless, even though not arduous care is required in order to achieve success.

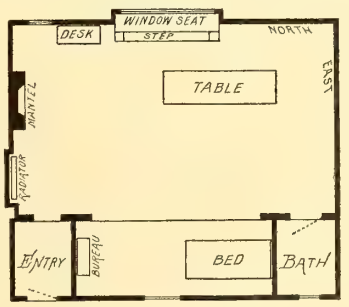
There is a definite sense of spaciousness, homelikeness and beauty combined that lends an unusual charm to this room and its various details

A City Apartment

By Harry Martin Yeomans

IT IS a pleasure to come across such an attractive apartment as the one shown in the accompanying illustrations, which demonstrates what can be accomplished with an old-fashioned apartment when artistic taste is brought to bear in decorating rooms, where existing conditions have to be met and these concrete facts molded into such shape as to form a fitting background for the furnishings selected and the occupants.

The walls of the good-sized, rectangular living-room were hung with a restful, neutral green paper, which faded, as most papers do, just enough to further neutralize the green and make a most harmonious background. The woodwork in the apartment was of the ordinary stock patterns, which, of course, could not be changed; so the only thing to do was to blot it out as much as possible by painting it a slightly darker green than the walls, thus bringing them into harmony and at the same time not emphasizing the woodwork.



Apartment Plan

The old Italian straight-backed chairs, the carved marriage-chest, the table and the carved and gilded candlesticks and sconces, give an Italian feeling to this room; but on looking farther we see that a Chinese teakwood console, chairs and stands, as well as Chinese porcelain vases, embroideries and brass candelabras, have been happily combined with the Italian furniture. It may seem a bit far-fetched to think of bringing together Italian furniture and articles from the Orient, and when it is mentioned, one is apt to think of Turkish spearheads and the obsolete cosey-corner. But in this room a subtle and harmonious combination of furniture of different kinds has been accomplished by choosing pieces, as they were picked up one by one, having the same strong structural lines in common, never losing sight of the fact that although a piece of furniture may be individually beautiful, it must harmonize with its surroundings and become a part of the room. For these reasons the Italian and Chinese pieces go well together, and they are further brought into relationship by the woods being of the same color and being covered with a fabric of the same tone.

The large north window contains rectangular leaded-glass panes, with a coat of arms of colored glass set in each section. When a window is treated in this way it is so decorative that nothing is required in the way of draperies, with the exception of a heavy curtain to be drawn in the evening. Underneath this long window is a built-in seat, raised one step above the level of the floor, where one can pass a quiet hour with a book. The space below the seat has been fitted with six good-sized drawers, which afford a convenient storage place, which is usually in

demand in an apartment. By the fireplace is a small recessed space containing the radiator, but this usually ugly feature has been transformed into a very pleasing one by the simple expedient of placing a wooden shelf over the radiator, from which has been hung an embroidered Chinese skirt of old Italian blue. The space above the radiator was fitted with shelves and enclosed by doors containing small panes of amber glass, which made a convenient bookcase and aid to improvement.

From every side the apartment is well arranged and furnished delightfully

The windows are hung with straight folds of Italian blue velour, hung on small brass rods and coming just to the sill. The curtains are not merely decorative, but are arranged so they can be drawn to exclude the light or the curious gaze of neighbors. A few pieces of yellow Chinese embroidery have been used with good effect, and add just the right touch of light and color. Some Oriental rugs cover the floor, which has been stained and waxed dark brown.

It will be noticed that there is an absence of useless decorative articles in this room; the pictures are large enough to be seen and enjoyed, and the candlesticks, vases and other small objects embody both the useful and the beautiful and do not merely fill up good space. The miniature suits of armor, which stand on the teakwood console, are interesting, as they are not often seen.

The sleeping-room, which is in an alcove opening directly off the living-room, contains a carved four-post bed and other mahogany furniture of late Colonial design. The walls are covered with a dull gold Japanese tea-chest paper, which makes a very beautiful wall covering and really has to be seen to be appreciated. This paper is made by printing by hand from wooden blocks, which method gives a slight unevenness to the pattern and adds greatly to its charm. One might think that a golden paper would have a bizarre effect, but such is not the case, as the color underneath the gold neutralizes it, so that when it is on the wall the paper has a beautiful golden-brown tone.

The bedroom window, opening on the stairway, was fitted with a lattice-work of narrow flat boards, painted to match the woodwork, which allows the light to enter and has taken away the hole-in-the-wall effect which this large opening would have if left in its original state. The window is hung with straight folds of blue velour, as in the living-room.

The bed is most attractive with a covering of dull blue and gold material, decorated near the edge with a band of gold galloon. The small flat pillows, covered with the same material, complete the arrangement. A covering of this sort brings the bedroom in closer color relationship with the rest of the apartment than if the ordinary white spread was used. There are no pictures in the bedroom, as the wallpaper is decorative enough in itself. This treatment is in fair accord with the evidences of good taste shown throughout the arrangement of objects and the accomplishment of effects in this bedroom, where reticence has been sought.

This shows the bedroom of the city apartment described in the accompanying article. It is designed in exquisite taste, as one will readily see

A row of well-ordered beehives generally suggests to everyone real country living, and bee-keeping is again becoming popular

Bee-Keeping as a Pastime

By E. I. Farrington

Photographs by W. H. Ballou and Dadman Co.

AS an outdoor hobby for after business hours let me recommend bee-keeping. Golf and tennis and horses are all very well, but none of them have the advantages of a modest little apiary under the apple trees in the back yard, where one may spend ten minutes or an hour or two, according to his mood and opportunities.

There is a fascination about bee-keeping which seizes upon one as soon as he begins to read its literature, no matter whether it be Maeterlinck's "Life of the Bee" or a bee supply catalogue. The expense is negligible and the rewards substantial, both in recreation and sweets. There is even a social side to bee-keeping, for those who follow it almost invariably fraternize freely and happily, while the gift of an occasional pound section of fine honey secures the friendly interest of one's neighbors.

Three colonies of bees are as many as the beginner ought to buy, and in most instances he will do just as well to commence with one. A colony of bees comprises about 60,000 workers (the females), 500 drones (the males), and a queen—perhaps eight quarts altogether. The bees should be Italian bees, for those have sweeter tempers than the common black bees, and it is for the interest of the amateur to buy them in a double-wall chaff hive, as a rule, for such a hive may be left outdoors all winter without detriment to the bees, whereas hives with single walls must be taken into the cellar or protected from the cold in one of several ways, involving more or less trouble.

Buying the bees in the hive which they are to occupy permanently, and with a queen already installed, the beginner is ready for business without further preliminaries. A hive of bees may be shipped safely by express, and there are reliable dealers in all the larger cities. It is sometimes cheaper to buy the bees of a bee-keeper living close at hand, but it is a mistake to start with any but Italian bees, or with inferior hives.

All modern hives are built on the same general principle, being simple hollow boxes in which are placed eight or ten light frames of wood, each filled with a sheet of wax, which is drawn out into comb by the bees and filled with honey or brood. Each frame may be handled separately, and as the bees always cluster on the comb, they may be moved about at will.

All bee-keepers agree, I think, that the best time to have bees shipped is the early Spring, just before the fruit trees begin to bloom. At that season the colonies are lightest in weight, as the bees have not begun to store honey, and for some reason the insects are never so docile as at fruit-blossoming time.

When the amateur orders his bees he will be asked whether he wants a tested or an untested queen. Now, an untested queen costs seventy-five cents and a tested one from one to ten dollars, so that the first inclination may be to specify an untested queen. That would be a mistake, however, and here is the reason. A virgin queen mates but once, and that in the air, often a long ways from the hive, so that no one can tell what drone overtakes her in the mad chase which marks her bridal flight. He may be from some other apiary or a wild bee from the woods. That being the case, it is impossible to know whether the progeny of the queen will be of pure blood until the young bees have begun to appear in the hive. Then the color determines the matter, and if the young bees are golden hued, as they should be, the mother is ready to be sold as a tested Italian queen. The man who buys an untested queen takes chances with this pastime.

The upper illustration shows the double-wall beehive with entrance contracted for winter, and the lower, with cover raised to show box filled with absorbent material

Everything depends upon having a good queen, for she is the mother of the entire colony. She is fed on predigested food and otherwise petted and coddled by the other bees. Her duties are strictly maternal though, and she is by no means the imperial martinet once supposed. She is exceedingly industrious. Often she lays her own weight in eggs in a single day—worker eggs in worker cells, and drone eggs in drone cells, which are a little larger. She continues to lay prolifically for two or three years and this remarkable degree of fecundity is very necessary, for the population of the hives could be kept up in no other way, as the worker bees live only six or seven weeks in Summer. They literally work themselves to death at this time.

A good queen is one which lays so many eggs that the number of bees is constantly increasing instead of diminishing, in spite of the heavy death rate, for in that way the colony grows stronger and there are more bees to bring in honey from the fields. A good colony fairly boils over with bees when the cover of the box is lifted.

This illustration shows the beeman finding the Queen Bee

One of the most fascinating features about bee-keeping, to me, is in keeping track of the queen and her activities. Most amateurs play with their hives too much for the good of the bees, but it is exceedingly interesting to lift the frames one by one, crowded to overflowing with yellow bodies, and search for Her Majesty. She is easily identified because of her long and tapering body, quite unlike the bodies of either workers or drones. The frames are not heavy, even when teeming with bees, and may be lifted to the level of the eye by placing one hand at each end. The day after the new colony arrives the beginner should look over the frames in this way to make sure that the queen is moving about among her retinue. It is not often that the queen suffers injury on such a journey, but it is well to be on the safe side, as much depends upon her. After that it really is not necessary to search for her very often, for the presence of eggs in the comb cells is sufficient proof that she is at work.

The hive should be so placed that the entrance will be toward the south or southeast, and it should be sheltered by trees or shrubbery. I have found an orchard an ideal place for bees, unless it is cultivated. It has been my custom to fence in an orchard and give it over to bees and poultry. The fowls eat the dead bees, but I never saw them trouble live ones. It is different with ducks; they kill the bees and the bees kill them.

I like to have my hives in front of a stone wall or some other protection from the north wind. Experience has taught me that they should be so placed, however, that they can be opened from the side or rear; it is poor policy to stand in front of the entrance when working.

Having now a colony of Italian bees in a double-wall chaff hive, let us see what else the beginner has included in his order, assuming that he has had good advice, and what the whole outfit has cost him. Here is a list, a little more complete than I gave with my first order:

One colony of bees in a ten-frame chaff hive	$11 00	One pair of bee-gloves	$0.50
One tested Italian queen	3.00	One hive tool	25
Two extra hives with frames, but no bees	9.20	One Porter bee-escape, with board	.35
Six supers with sections filled with comb foundations	1.50	One bee-brush	.15
One Standard bee-smoker	.85	One feeder	.10
One Globe bee-veil	1.00	One queen-cage	.10
		Total	$28.00

Now, as to the articles listed here but not already described. The supers are square boxes without top or bottom, which are put on the hive body—one, two or three of them, as may be required—to hold the surplus honey. They are filled with little squares of wood, such as are seen in the shops holding comb honey. These squares are called sections, and rest in a little support which holds them in position in the super. The bees come up from the frames in the hive body below and fill the sections with honey, when the flowers are yielding nectar abundantly. Each section is supposed to hold a pound of honey. Each section should contain comb foundation, which is a thin sheet of wax, with which the bees start the combs. Some bee-keepers use only small strips of foundation, as a matter of economy, but I much prefer full sheets. It requires about ten pounds of honey to make one pound of wax, so that all the help given the bees in this way is well worth while.

A super, filled with these sections arranged in rows, is put on the hive just before the bees are due to bring in honey in abundance, which is when the flowers begin to bloom. When the bees have filled all the frames in the hive body and brood, they surge up into the supers, draw out the foundation into comb and fill the comb with honey. This is the only honey to which the bee-keeper is entitled, as that below cannot be disturbed without robbing the bees. They need as least twenty-five pounds to last them through the winter.

He must be a lethargic bee-keeper who does not get excited when a fine honey flow is on. Then the bees work night and day—in the fields by daylight and in the hive after dark. The air about the hive-entrance is fairly alive with them, but they are good-natured and happy, paying no attention to anything but the business in hand. A super may be filled in a day or two. Then it is raised and another put beneath it. That, too, may be filled, and a third, or even a fourth and a fifth, placed in position and crowded with the honey harvest—a total of several hundred pounds. That is the sort of thing that raises the amateur to the seventh heaven of happiness and leads him to neglect all his other business while the honey flow is on. This must not be expected as a regular event, however. As a rule, the beginner should be satisfied with a yield of thirty or forty pounds a colony, that being a fair average.

In the Fall, after the honey has been removed, one super is filled with leaves, chaff or pine needles and placed on the hive under the cover, as an absorbent and a protection against cold.

The bee-gloves and veil listed are indispensable for the amateur, and should be put on every time the hive is opened. In this way all danger of stings is obviated. The gloves are long and have elastic tape which binds the sleeve closely to the arm. I have found that it is also wise to use elastic around the bottom of my trousers legs, for the bees sometimes fall into the grass. I have a vivid recollection of a bee which climbed to my thigh, where it smote me when I unthinkingly clapped my hand on the spot where I felt it crawling. It may be said, parenthetically, that ammonia is the sovereign panacea for bee stings. The main thing, though, is to instantly remove the barb which the bee leaves

in the flesh. This may be done by brushing the sleeve or hand over the spot.

Many professional bee-keepers seldom use veil or gloves, but none of them scorn the bee-smoker, by means of which it is possible to ward off many attacks when the bees are in ill humor. Sweet-tempered as Italian bees are, they are easily angered if interfered with at night or on a cold and cloudy day, as well as by nervous and hurried motions. If a hive is opened at mid-day, with honey coming in freely, the bees will give no trouble, but the use of a smoker makes it possible to control the insects under all conditions. It is a little device in which old rags, rotted wood or any material which makes a dense smoke may be burned. A small bellows blows the smoke through a nozzle, so that it may be directed to any given spot. When a hive is to be opened a little smoke is driven into the entrance and a little under a corner of the cover. This is usually enough to subdue the bees, for they become demoralized in the presence of smoke. Most beginners use too much smoke in their nervousness.

Women are very successful bee-keepers

Removing the surplus honey was a rather exciting operation until the Porter bee-escape, combined with a honey-board, came into general use. Now it is a very simple matter. The bee-escape is a little device which is placed over a hole in the center of a light board, and which allows a bee to pass through in one direction only. The board is slipped between the super and the hive body and a few puffs of smoke forced into the super. When the hive is opened, several hours later, the super is found practically free of bees and the honey may be removed at leisure, which proves the worth of the device.

The hive tool is a handy little instrument for prying open the hive when it sticks, and for various other purposes. A screw-driver is a poor substitute here.

The feeder is for use in giving the bees aid when they have not stored sufficient honey to last them through the Winter. Occasionally it is possible to save a weak swarm by this means. Granulated sugar is dissolved in water and placed in the feeder, which is put into the hive. It must always be used inside the hive in order to prevent robbing on the part of bees from other hives, which often occurs when sweets are exposed, and which is highly demoralizing. A moral sense seems to be something which bees lack. A friend of mine has several hives in an attic. On one occasion he left the super on one hive uncovered for a short time when he was called away. When he returned the attic was filled with a buzzing horde of robber bees.

Smoking the bees before opening a hive. These are single-wall hives

The bee-brush is convenient when it is necessary to remove the bees from a frame of comb for any purpose. It will be used more frequently as the beginner gets experience and adds to the number of his colonies.

One of the first things about which the amateur begins to worry is swarming, but even that bugaboo ceases to trouble him when he learns how to clip the tiny wings of the queen with a pair of curved manicure scissors. This operation should take place early in the season, and is not at all difficult. A bright, warm day should be chosen, so that the worker bees will be in the fields, making it easier to find the queen. Then Her Majesty may be picked up gently and the ends of the wings snipped off.

The swarming fever may be held in check by putting the supers on early and by using a large hive; but if a swarm does issue, the clipped queen will drop to the ground in front of the hive, not being able to fly. The swarm will keep on until it finds that the queen is missing, when it will come circling back. In the meantime the bee-keeper will have picked up the queen and put her into the cage mentioned in the above list. If he wants to increase the number of his colonies, he will remove the old hive and substitute a new one. Then, when the swarm returns and commences to go in, he will place the queen among the bees and she will run in, too. When the bees have been hived, the new colony may be given another location and the old hive returned to its orignal stand.

The bee-keeper will then have two colonies instead of one, for only a portion of the bees swarm, and a new queen will be reared in the old hive without the assistance of the bee-keeper. A queen is raised from an ordinary worker egg, her peculiar development being due to the manner in which she is fed and cared for by the other bees. A cell containing a prospective queen is easily distinguished, as it is made much larger than the others. It is possible to build up a good-sized apiary in a few years from a single colony by permitting free swarming. That is why I said at the beginning that three hives at the most were all the beginner should start work with.

Of course, less honey is secured when the bees are allowed to swarm freely, as the strength of the colony is depleted. If a new colony is not desired, the queen is simply allowed to run into the old hive when the bees return from their flight. Then two or three frames of comb are removed from the middle of the hive and replaced with frames having only foundation sheets of wax. The bees usually are willing to begin on them, quickly drawing out the wax into comb. When the bees are run for honey only, the amount produced averages about thirty pounds to a colony. Sometimes it is much less; again, it may be a hundred pounds, or even more, if the season is a good one and the colony strong. Comb honey sells at the stores for from twenty to thirty cents a pound. Whether the honey be sold or its value credited to the household commissary, it represents practically all profit. A trifling amount may be required for starters and honey sections, but the upkeep is very small. Most amateurs will want to increase the number of their colonies through swarming, and, of course, a new hive with its equipment must be supplied with each additional colony. After the amateur has had a few years' experience, however, he probably will begin to use single-wall hives, as they are easier to handle when there are a considerable number to be shifted about. These hives vary in price, but are less than the double-wall hives; but whatever is the cost of bee-keeping, no other hobby pays a dividend on the money invested.

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

CONCERNING DRAPERIES

By Harry Martin Yeomans

IN common with a great many other things relative to interior decoration, draperies have passed through so many vicissitudes since first coming into use that one is apt to forget that theirs was in the beginning a utilitarian purpose. Like the chimney-seat, the high-backed settle and the winged chair, which kept off the cold and conserved the heat from the open fire, so, too, during the old days the rather heavy arras hangings were drawn entirely across the windows and the high-post beds to afford the necessary protection from the cold and from draughts which penetrated the badly heated and poorly ventilated houses of those times. They were useful, and not merely decorative. The heavy over-draperies, ornamented with an abundance of fringe, cord and tassels, looped up in festoons and falling in cascades, were an invention of the upholsterer of a later period, who swathed the structural woodwork of doors, windows and mantels in dust-catching and insanitary draperies, regardless of any real purpose which they might serve.

A few years ago it was considered necessary to have three sets of curtains at each window, the combined efforts of which were quite successful in excluding the light and sunshine. But fortunately they are a thing of the past, and the purely ornamental draperies are passing out, due to an awakened interest in the why and wherefore of things decorative and a realization that draperies should justify their existence by adding their quota of utility as well as beauty to the house. Window treatments should be both sane and simple, and the hangings should be so arranged as to give a pleasing and uniform appearance to the exterior of the house, to exclude the glare of too much light, and to be drawn in the evening when the lamps are lighted and privacy is desired within the room.

Window treatment should be both sane and simple in the matter of draperies

Pane curtains of a light material with over-curtains of a heavier fabric are all that should be required for the windows of the small house. Diaphanous sash or pane curtains of écru net, point d'esprit, scrim or China silk, run on small brass rods, are in good taste and appropriate for every room in the house. It is a good idea to have them of the same material throughout, which will give unity to your decorative scheme. If further curtains are required, they should be in the form of over-curtains of a more substantial textile, this depending on the texture and furnishings of the room. These curtains should be either sill length or come all the way to the floor, and hang in straight folds from brass rods, and arranged so that they can be easily drawn.

Elaborately draped valances are a thing of the past, but one laid in box or side plaits is simple and effective when made of a light material, such as cretonne or chintz. If the curtains should be of a heavy fabric, like velour, a plain valance should be used, decorated with a band of gold galloon near the edge. A valance will have the effect of reducing the apparent height of a window, and should not be used over low windows. If one does not wish to have the rod and rings show, a heading at the top of the curtains will cover them effectively.

Long curtains coming to the floor should be lined, as this will give them more body; but when they are only sill length this is not necessary, especially with such fabrics as rajah silk, pongee or other rough materials of the same texture. A tiny hem at the bottom of such curtains, filled with shot, will make them hang better.

As far as it is practical to do so, curtains should be hung in the windows, or in such a way as not to cover up all of the standing woodwork, which adds to the constructive quality of a room. Portières should be used in doorways only when there is some reason for their being there, and openings that are supplied with doors should not be curtained, unless the design of the door is so poor that it must be completely hidden.

TRYING OUT A COLOR SCHEME.

WHEN decorating a house, or even a single room, we can save ourselves from exasperation and disappointment with the final results if we will only give a little forethought to our task and take the precaution of trying out our color scheme. Wall-papers and fabrics for hangings and wall covering frequently have the bad habit of not coming up to one's expectations when placed in a room, and still they seemed to be just the right thing when seen in the shop.

The effect of wall-papers that are to be used in various rooms which get their light from different directions cannot be accurately judged in the light of a shop. Some colors

The several types of draperies for doors and windows are designed upon lines that emphasize the value and dignity of simplicity

have the happy faculty of changing under artificial lights, and this is another reason why the effect of wall coverings should be experimented with in the actual rooms in which they are to be used. Most wall-paper shops will not give samples, but a whole roll can be purchased and returned if it should prove unsatisfactory.

If plaster walls are to be tinted and the woodwork stained, it is extremely important that one should take the precaution of gaging the ultimate results after the drying process has taken place. If it is a new house which is being decorated, some of the plaster can be spread on boards for experimental purposes with the wall tints, and the wood dyes and stains can be rubbed into bits of molding. This may appear to be a great deal of trouble, but the results will justify all the time and thought that has been expended.

THE ADAPTABLE WINDSOR CHAIR.

A CHAIR that looks well in almost any environment is indeed worthy of note, especially when it is inexpensive, and such is the case with our old friend, the sturdy Windsor chair. This type of chair can be used to advantage in rooms furnished in Colonial, mahogany, Mission, old English, or in conjunction with any furniture finished in a dull dark stain and showing the grain of the wood. The writer had the extreme adaptability of this chair forcibly brought to his attention recently in the living-room of a new house. Strict economy had to be practiced in the furnishing of this room, so it was decided to use some Windsor chairs in addition to the old mahogany ones which the owner already possessed, as they were economical and helped along the Colonial spirit of the room, and could also be used as porch furniture during the Summer.

In another small house in the country some of these chairs had been treated to a coat of flat dark green paint, and made most acceptable chairs for the dining-room, with its yellow tinted walls, sage-green woodwork and yellow China silk sill-length curtains at the windows.

The shops carry these chairs in the white wood, and they will furnish them in various stains and in mahogany to carry out any desired color scheme and they cost exactly $4.50.

A Windsor chair looks well in almost any environment

LEFT-OVER WALL-PAPERS IN REACH OF ALMOST ANY PURSE

ONE resourceful woman, who is her own decorator and has just finished the refurnishing of some bedrooms in a little house in the country, has told me of the good use which she made of the flower-bedecked papers which were left over. Large square hat-boxes, which adorned the upper shelf in a closet, were covered with the paper, and thus brought into harmony with the rest of the room, and gave the closet a neat and tidy appearance if the door should be left open. The drawers of the chiffoniers and bureaus were lined with the wall-paper, which was held in place by thumb-tacks, so that it could be easily changed if it should become soiled or necessary to be removed for any cause.

REAL TAPESTRIES

(*Continued from page 48*)

these are the tapestries that Aubusson weavers understand best how to produce. Not that I would decry the art of the Aubusson weavers. From time immemorial this little city of Aubusson, in France, two hundred and seven miles by rail south of Paris, has been noted as a center of tapestry weaving. Tradition says that the industry was established here in 732 A.D., by stragglers from the great Saracen army, defeated near Tours by Charles Martel, grandfather of Charlemagne. As late as 1585 the weavers were called *tappiciers sarrazinois* (Saracen tapestry-makers). The Aubusson product is by no means confined to furniture coverings. At the Paris Exposition of 1900 two Aubusson manufacturers received the grand prize, displaying among the reproductions two of Le Brun's Seventeenth Century "Royal Residences," of which the jury said, "They are so like the originals as to be mistaken for them." The so-called Aubusson rugs are real tapestry in heavy weave, and in designs suitable for the floor.

Of Eighteenth Century tapestries in general, it may be said that they are vastly inferior to the Baroque ones of the Seventeenth Century, just as these are inferior to the Renaissance ones of the Sixteenth Century, and the Renaissance ones to the Gothic tapestries of the Fifteenth Century and earlier.

Among Renaissance tapestries especially desirable for reproduction are the Grotesque ones that have ornament pure and simple—ornament often incorrectly called arabesque and consisting of arbors and foliage and flowers, and occasional human and animal forms—and that get their name "Grotesque" from the Roman excavations (crypts or grottos) that at the beginning of the Sixteenth Century disclosed the Golden House of Nero. Photographs and color sketches are easily accessible, from which the reproductions can be woven with finished effect.

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

FEBRUARY GARDENING, INDOORS AND OUT

THIS is good St. Valentine's month, dedicated to the Bleeding-Heart, the Dicentra of our old-fashioned gardens. The snows still cling to the ground. Even the courageous Crocus will not be so foolhardy as to be peeping its little head above the generous blanket of earth which good Mother Nature has lent it for weeks to come. Nevertheless, it is time to be stirring in matters relating to the garden you have in mind for next Summer. You will be wishing to make up your plant lists by next month, and placing your orders for seeds then, so it will be well for you now to be attending to the laying out of your garden on paper as you intend it to be arranged when the actual working of the soil commences, with the advent of Springtime. If you get your seeds now you will have a chance to entertain yourself, and instructively, too, by testing their germination qualities, indoors, in a flat of earth. The middle of February is not too early for starting various early vegetables, indoors or in the greenhouse, later to be transferred to the coldframe outdoors. A top dressing of fine manure will not prove amiss if applied now to the lawn, for the Winter care of the lawn is a very important matter to take into consideration, when fine sod is desired. You may take cuttings now from your Chrysanthemums for next Fall's flowering, and small greenhouse plants can now be purchased and cultivated throughout Spring and Summer, until they reach their maturity next season. Indoors there will be plenty of work to be undertaken in connection with house plants, for their increased growth during the Winter will probably require that they be repotted. This will be especially true of palms, ferns and other foliage plants. If you have Rhubarb in your garden from year to year, you can force the roots at this time to an early growth by placing barrels or boxes over them and covering with stable manure. This will bring the stocks forth well in advance of their ordinary season if the roots are merely left to themselves. In February, too, one should not forget to examine any plum or cherry trees that may adorn the garden. It is possible they will be afflicted with what is known as plum-knot, a disease which causes the affected limbs and branches to swell. All knots should be cut off and burned.

The lovely fragrant Heliotrope will never lose its perennial popularity

FLOWER SEEDS TO SOW IN FEBRUARY

THE month of February will be a good one in which the amateur gardener can experiment with planting seeds in flats—that is to say, in shallow boxes, indoors—of the Rex Begonia, of other Begonias, and of the Heliotropes. THE first of these, the Begonia, produces a fine dust-like seed, which must be sown on the surface of the earth in the flats. In ten days these seeds should germinate, and the tiny plants, springing up thickly, merely appear like a green mossy growth on the soil. As soon as the diminutive Begonias will stand pricking out, they should be set an inch apart in another flat and left until they attain a height of a little over an inch, when it will be safe to transfer them to two-inch pots containing a rich loamy earth. Next these two-inch pots containing the young Begonias should be plunged—that is to say, placed in pans of wet sand, surrounding them to the rims, and kept in a cool window with a northern exposure, though out of a draught. These growing plants will require moisture from the air, so if they are placed in a room heated by stove or otherwise a pan of water must be kept on the heater and never allowed to become dry. February-planted Begonias will be ready to bed out in the early Summer. One must not overlook the fact that there are two kinds of Begonias—the tuberous ones that are used for Summer flowering, and the fibrous ones for Winter. The tuberous Begonias owe their origin to the South American species, such as *B. Boliviensis, B.*

There is a definite pleasure in raising such Begonias as these oneself from seed, either to adorn the window garden or the outdoor beds

Clarkei, B. Davisi, B. Pearcei, B. rosaeflora and *B. Veitchii.* There are also the semi-tuberous Begonias (hybrids between tuberous-rooted and fibrous-rooted species), such as the varieties known as Winter Cheer (carmine) and Julius (rose). The beautiful pink Gloire de Lorraine is the loveliest Winter Begonia, having attractive foliage and producing hundreds of flowers. Moreover, it can stand a temperature as low as 58 degrees in Winter, and is one of the best Begonias grown for use in hanging baskets. This variety needs plenty of water. Of the Rex Begonias (those raised for their foliage, having, as they do, inconspicuous flowers), one may recommend the following varieties: Grandis (bronze), President Carnot (silvery white), Surprise (deep bronze and silvery rose), The Mystery (red and green with silvery edge), and the Van-der Hyde (mottled green and white). Of the flowering Begonias, the following are very attractive: *Alba picta* (narrow, green leaves spotted with white, and white flowers in clusters), *Argentea Guttata* (bronze leaf marked with silver, and white flowers), *B. McBethii* (finely-cut foliage and pure white flowers), *B. Metallica* (bronze foliage and white flowers), Margurite (foliage resembles *B. Metallica,* but flowers are light rose color), Zebrina (white-veined dark-green foliage and light pink flowers), and *B. grandiflora erecta cristata* (Bearded Begonia). Then there are the Wax Begonias (*B. semperfloreus*), which bloom continuously.

The Begonia will ever remain one of the loveliest plants for both indoor and for outdoor culture, blossoming, as it does at all seasons

WHEN Heliotrope seed is planted in February it will produce plants large enough by early Summer for bedding outdoors. Heliotrope seed requires a soil that is just moist, and never wet or completely dry. After sprinkling the seed over the surface of the flat, sprinkle over it a light layer of fine white sand. In twenty days the seed should germinate. Although there are many excellent varieties of the Heliotrope, there is no variety more satisfactory than the old-fashioned lilac-colored Peruvianum, which is exceedingly fragrant and floriferous.

CELERY FROM SEED

ONE of the readers of this department requests information regarding Celery raising from the seed, and as this will prove of interest to many, the following hints for this culture are here given; February will be the proper month in which the amateur vegetable gardener may essay Celery growing from seed. White Plume or Golden Self-Blanching varieties are especially recommended, and the seeds of these may now be sown indoors in flats if a fine loamy soil is procurable for filling them. The seed must be sown generously by sprinkling over the soil, upon which one should sift a thin layer composed of half sand and half pulverized soil. This should be firmed well with a flat piece of wood (*i.e.,* the soil gently but firmly patted down). The flats newly seeded require a moderately warm place and frequent watering, though the soil in this connection must never be soaked or drenched.

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

SOMETHING ABOUT THE LUNCHEON

By Elizabeth Atwood
Photographs by Jessie Tarbox Beals and T. C. Turner

THERE are very few women, given the inspiration of opportunity and money to pay the bills, who would not be equal to giving a perfectly appointed luncheon. If they do not possess individual resources, there are those to whom they may turn who make a living out of planning such things for others. From those who plan the color scheme for the day, with its myriad of details carefully looked after, and those who prepare the various delectable dishes called for in the plan, a complete and artistic whole can surely be developed.

But what about the daily luncheon, six days of the week? What must the resources be of the mother who watches over and cares for her growing children, whether they are two years old or in the football field? I think that here is a very important part of the housekeeper's responsibilities, not that any part is unimportant, but so many women feel that anything will answer for that meal, unless company is there. How about treating one's family with the same consideration one's guests are treated with? The family will not care for darkened windows and prettily shaded candles, maybe, nor will they care for "calf's head a la vinaigrette" or "hashed turkey a la royale," with its mushroom liquor and pâté de foies gras, but they do care for the little attentions from Mother quite as much as her guests. I know this to be so from various sources.

We are given over to the idea of a "light breakfast," we of the average "middle-class," as well as those of the "upper-class." It is also generally the habit to serve our fresh meat in whatever form, for dinner. Dinner, at least in and around the cities, is usually an evening meal. This means that luncheon becomes the meal where the "left-overs" are disposed of, and it is up to the cook—whether she is Mother, or Margaret, or maid—to see that these "left-overs" are treated with proper and respectful attention. Right here let me tell you that it is far easier to cook your fresh foods than it is to make "scraps" pretty to look at and palatable as well.

In these days of exorbitant prices, all scraps should be looked after. Nothing should be despised, and absolutely nothing should be thrown away. When living in an apartment in the city of New York, it used to hurt me to see the good foods which went down each morning in the garbage pails. Surely such waste must bring its punishment sooner or later. Bread enough to keep a family went down every week. Part of this waste is due to ignorance, but a greater part is due to simon-pure laziness. It does take time to work over scraps into dainty dishes; it does take thought and inclination, too. But, my! doesn't it pay? Just try it and find out for yourself.

My football hero loves to bring his friends home to lunch, and they never refuse his invitation. The mother of one of these friends called me up by telephone the other day to ask me what I had given her boy to eat. "I can't get him to eat luncheon at home," she said, "and I thought I would like to know what you give the boys." It happened that this time I was not prepared for one guest, at least as to quantity, and it means quantity when you feed boys. I had some bits of steak and a few potatoes, not enough for more than three, and there were six! I had prepared this for hash, but I had some pieces of toast left from breakfast, which I dipped in salted water, placed these in the center of a large platter, and put the hash in mounds on the toast. I had a few peas left from the night before, which I had warmed up to serve the three planned for; I put these as a frame around the hash on toast.

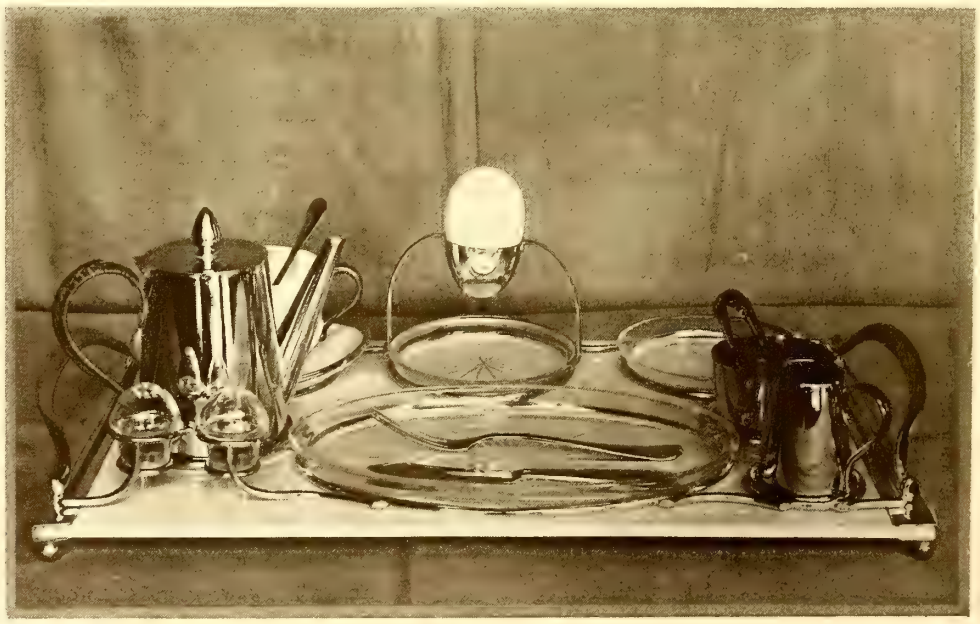
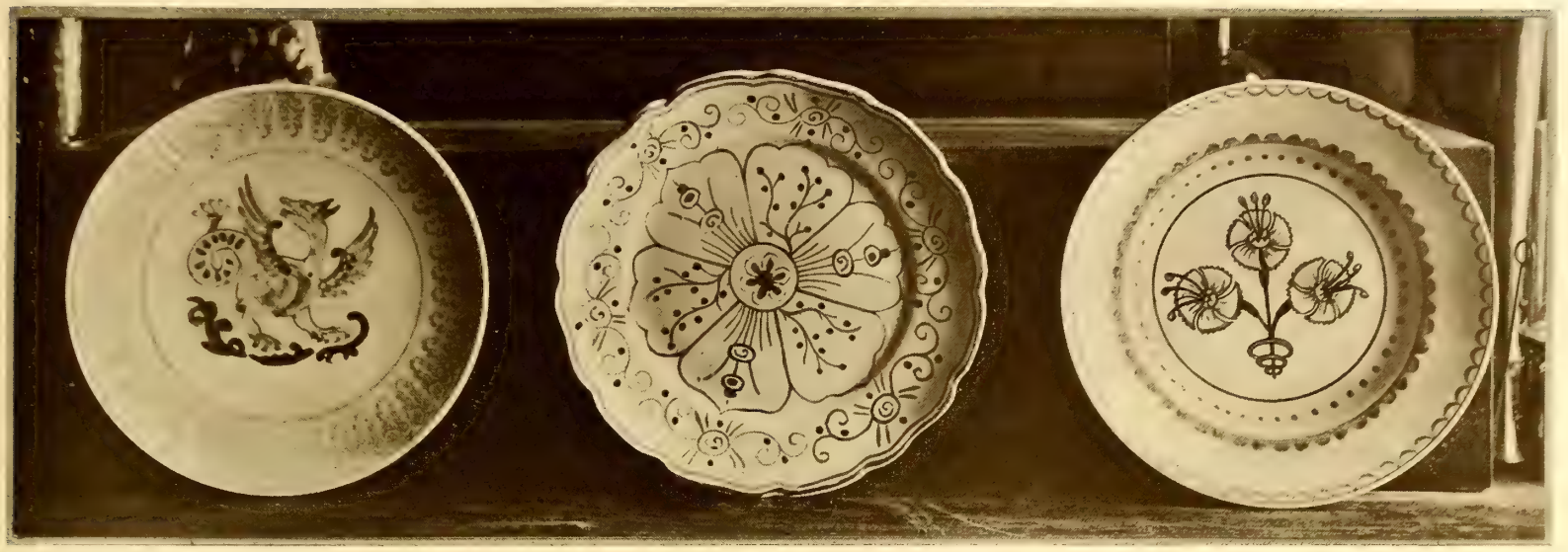


Illustration of a nickel and cut-glass breakfast set. One of the recent novelties in the market

I knew these would not be enough for these hungry boys, so I scrambled four eggs, adding half a cup of milk for bulk. I cut some fingers of toast, put these around the edge of the platter, with a small spoonful of egg on each. In this way a poor little lot of scraps were converted into a pretty dish, for the color scheme of it made it attractive to the eye. And, also, things that would have been useless had it not been for a little thought and trouble, were made a



Three plates of Russian ware. Some of the designs are in blue or brown on a white ground, while others are varied in color. They are attractive and inexpensive

substantial meal for these football players. "Why, I never think much about luncheon," this mother said; "but I give them a good dinner."

There you are! Luncheon not given much thought, when boys and girls lead such strenuous lives! These football players need to be given nourishing food at noon, when either practice or game will take so much out of them before dinner-time comes. It need not be chops or steak. Our farmers and our Government employ scientific experts to help them; they study well the needs of their cattle to find a properly balanced ration to feed them. Can mothers do less for their families? I should say, ought they to do less? Are not these growing children in as great need of thoughtful care of their food as the animals on a farm?

Pieces from Bayeux ware luncheon set. The colored decoration, on a cream glazed ground, reproduces the designs of the famous Bayeux tapestry

For instance: In cold weather, when the food value of meat is lacking, I always have cocoa to help out, or I will have a soup. I always save every scrap of toast, and, to make the soup more inviting, I cut these scraps into dice. Not having left-over toast, I make toast for these croutons, knowing them to be more wholesome than fried croutons. This is no trick; it simply calls for more time in preparing than it would take to put crackers on a plate.

I make a mayonnaise which is not rich (you can make it so if you wish to), which will keep indefinitely, and when the supply is getting low I prepare more, so that I am never without it. It is nourishing and wholesome, and is good to use in many ways. It is economical, too, for I make cornstarch take the place of so many eggs. Put three cups of milk in a double boiler, and when hot, stir in three teaspoonfuls of cornstarch which has been dissolved in cold milk. While this is still cooking, take two dessertspoons each of mustard and sugar and one dessertspoon of salt. Mix well and then stir in two whole eggs.

Sometimes, when I wish to make a white cake, I use the yolks of five eggs in this way: Put butter the size of an egg into the boiling milk, and have one cup of vinegar measured ready for use. Now is the critical point. Add the eggs, and do not stop stirring after the eggs are added to the milk. When this mixture is well stirred together, put in the cup of vinegar and stir even more briskly for two or three minutes. All this time the water in the under part of the boiler should boil very hard. Take off and put in pan of cold water. Keep on stirring until the boiling heat is out of the mixture, or it will try to curdle. A little onion juice may be added, if there is no prejudice against onions.

With this mayonnaise in stock I am always ready for the unexpected guest. I generally have canned chicken, salmon and peas in stock. Also for part of the week I have cold cooked rice on hand. I use any kind of cold meat that I may have for these simple home salads. Take a little cold roast pork, or even pork chops, cut up into dice, add a cup of rice and some celery cut fine, and you have, with the lettuce leaves on which you put it, a wholesome dish, even though it bears the name of salad. I have even taken cold lamb, or mutton, being careful to trim off every bit of fat, and used it in this way, adding peas when I have them. This is contrary to my early training, but I have found that scraps of meat used in this way are really good, much better than warming over in their original form.

Another dish which meets the approval of all cheese lovers is this: Take American cheese and chop it fine, adding from time to time a little of this mayonnaise, until the mixture is fine and smooth. This is used as one uses cream cheese. When I have to go to the city, or for any reason cannot be at home for luncheon, I prepare a filling for sandwiches simply and easily. I chop my cold meat which I have on hand, or boil eggs twenty minutes. When they are mealy, chop very fine; add mayonnaise till a smooth paste is formed. Take a pot of deviled ham, and it is greatly improved by the addition of some of this dressing.

I keep nut meats of some kind on hand, and always have lettuce. This is by no means as extravagant as it sounds, for five cents' worth of nut meats in a salad will go farther than any kind of meat which may be bought for five cents. Apples and nuts, even though you do not have the celery to make it properly a "Waldorf salad," are delicious. This convenience of having things in the house, instead of over in the store, is solely a matter of habit. In fact, every dealer will make a discount if cans of goods are bought by the half dozen, and one can always have lettuce if they will

Five interesting styles of table bells. These are all models of antique bells or adapted from old designs, but may be found in the shops of our large cities

remember and buy for to-morrow with to-day's goods.

Then there is hash, which may be made to contain various kinds of nourishment. A southern girl greatly enjoys what she calls my dry hash. Hash in the south is what we call minced meat, with a good deal of gravy to it. I learned how to make the hash which she likes from an excellent cook in Vermont. There is always some stale bread chopped in with the meat, and well seasoned with some scraped onion, salt, pepper, and a few drops of Worcestershire sauce, before the potatoes are added. When the spider is put on, instead of lard or butter being used, milk, according to the amount of hash, is allowed to heat before putting in the hash. If the hash seems too dry, add more milk or water, and cook at least half an hour over a slow fire, stirring occasionally. This same hash molded into balls, dipped in egg and then in breadcrumbs, and again in egg and then in crumbs, makes fine croquettes fried in deep fat. I seldom do this, for I regard the plain hash as a more wholesome dish for family use. By the way, is it not strange that we are apt to prepare more indigestible food for a formal luncheon than we serve to our families? I like the idea of serving every day to my own something so good and in such attractive shape that the stranger will be able to enjoy it, too, for, after all, we live more for our own family than for the formal guest, and I do not care for formal guests! I want even the presupposed formal guest to enter into the family and to lunch with them. What is good enough for the family surely is good enough for the guest if the family is cared for according to the proper standard, as it should be.

ATTRACTIVE BAKING-DISHES

AT once a joy and a boon are these pretty kitchen dishes, for baking particularly. They do look so cheery and promising when brought on the table with their contents steaming hot. Originally we had only the casseroles in various sizes and shapes, with and without covers or handles. Now we have pitchers, cups — even a salad bowl comes in this pretty chocolate-colored ware with its snow-white lining.

Attractive baking dishes add greatly to the pleasure of cooking

In the casseroles and open baking-dishes we are tempted to try experiments with the various things requiring long cooking; with combinations, which cooked in a common iron kettle would be called "stew." Served "en casserole," in the dear little dish in which it has been cooked, the despised stew takes on new flavor, because the eye has been gratified first.

These attractive dishes are not beyond the purse of the housewife whose expenditure is limited, although they cost somewhat more than granite ware or tin. But they are such a comfort one should begin accumulating them, for nothing is more practical and alluring in the list of kitchen furnishings than these porcelain sets, now extensively made.

THE HOUSE IN THE SUBURBS

(*Continued from page 44*)

tiles on roof or floors of verandas. The Valentine house has a broad hall, although it does not divide the house, as is the case in some of the other houses we have shown. Its arrangement makes possible two windows opening upon the veranda and a very successful placing of the main stairway in an alcove. This long, beautifully proportioned hall opens at either end by broad openings into living-room and dining-room, and the living-room opens by casement windows into a broad veranda flagged with brick and screened. A similar veranda at the opposite end of the house provides symmetry and serves as an out-of-door living-room.

The home of Harry H. Gifford, Esq., at Summit, New Jersey, designed by Charles Allen Gifford, architect, New York, differs in many ways from any of the houses we have shown and described. It is of brick and very nearly square, and though somewhat similar to the houses built by the English settlers in Massachusetts, it is more closely related to the work of the English colonists in Virginia or Maryland.

The suburbs of New York, with their variety of domestic architecture, deserve careful study by all interested in home-building.

The Making and Management of Hotbeds and Coldframes

By F. F. ROCKWELL

TOO many persons still labor under the misapprehension that one must employ the services of a professional gardener in order to get into the real niceties of gardening. As one of these "niceties" that have been neglected too often by the amateur gardener one might class the making and management of hotbeds and coldframes, especially the making and management of the latter.

And yet without frames not only is the garden season unnecessarily shortened several months—months, not weeks, mind you—but the summer garden itself is inevitably handicapped. The hotbed, and even more so the coldframe, is an indispensable adjunct to every efficient garden. And let me add, just as a passing but serious consideration, that with the price-tags one sees these days stuck in the green-grocer's boxes and barrels, the efficient garden is not a thing to be overlooked, even if catnip may grow with the weeds in the border. It's getting to be fully as much a necessity as a luxury. It pays a real cash return on the investment.

One may manage his supplementary garden successfully without the assistance of a professional. In contrasting those persons who own small gardens and yet have their gardening done for them with those who garden for themselves one will find that the latter are those who get the most out of it. He who gets the benefit of his garden—either outdoors or under glass—only when he sits down to the table, is missing all the best part of it.

Even in the making of the frames you can, if you are a bit handy with tools, dispense with the services of a carpenter; there is no complicated work to be done. If you have no spare time, probably the best way is to buy both "sash" and "frame-beds" ready-made. The latter are shipped "knocked down" and come all ready for you to assemble and set up. Several firms are now making something of a specialty of supplying these. The prices, considering the quality of material and workmanship, are very reasonable. There certainly is no excuse for any one whose "time" is so valuable that he can't afford enough of it to build his own frame, not to buy at least a three-sash frame "ready-made."

For the person, however, who has a little spare time and likes to use it in cash-saving ways, the building of his—or even of her—own frames offers a very agreeable task, not too difficult for the beginner.

So far as the materials go, hotbeds and coldframes are alike. The difference between the two is that the coldframe depends for its warmth upon receiving and holding the sun's rays, the hotbed is supplied with artificial heat. This is furnished in practically all cases by fermenting horse manure. Steam and hot water pipes have been used, but without much success—the heat they supply is too variable. It will be seen, of course, that in the case of the hotbed, extra room must be allowed for the heating material.

DETAILS OF CONSTRUCTION

The standard "sash" used as a covering for both coldframes and beds is three by six feet. They can be bought, glazed and painted, at from $2.50 to $3.50 each. If you are really pining for work, you can buy the frames and glaze them yourself, but on a few sashes you can't save enough to pay for your time. There is now made also a sash with *double* glass, with an air space between. They have the disadvantage of being very heavy; but this is more than compensated for by the fact that this air cushion takes the place of covering with mats and shutters, so that they are very much warmer than the single glass. The latter are used, however, and probably will continue to be, for the greater part of gardening operations in the spring and early fall.

The size of the frame to be constructed will depend, of course, upon the number of sash to be used. Three is a handy number for the home garden. Figured on that basis, the inside of the frame would be nine feet by six. It is best, however, to have your sash on hand before constructing your frame, in order that you may get all measurements exact. It is usual, for instance, to place between each two sashes a 2 by 4 support laid flat and on a level with the edge of the frame, upon which is nailed a 1-inch by 2-inch strip, edge up. This serves as a support and guide in handling the sash. In estimating the length of the frame, those 1-inch strips must be allowed for. There would, of course, be *two* in a three-sash frame.

The depth of the frame will depend on whether it is to be used as a hotbed or merely as a coldframe. In the former case it should be from two to three feet deep—preferably the latter. Half of this should be below the ground level. The back side of the frame should be about six inches higher than the front, to give the sash a pitch required to carry off rain and better to catch the sunlight. Where a simple coldframe is required, the frame may be 18 inches in front and 24 inches back.

The best materials to use, if you want something lasting and substantial, is 2 x 12-inch plank of chestnut, or cypress. A cheaper frame may be made by using 1-inch boards, with 2 x 4-inch studding for posts, and ½ x 1-inch battens for covering cracks. Concrete is also used in making frames, and gives the ideal results. The initial cost is more, but the frame is practically everlasting and is water and animal proof. Such a frame must be constructed with forms and a good rich mixture, in the regular way. If you contemplate building a concrete frame, get the assistance of someone familiar with the working of it.

PREPARING THE MATERIALS

The preparation of the soil for a coldframe is very simple. The ground inside of it, or over which it is to be placed, is dug up and well enriched with rotted manure. Where the frame is permanent, the protection of a heavy coating of manure is often given in the fall, and the sash left on, so that work may be begun earlier in the spring.

For the hotbed the matter is not so simple. Where the hotbed is already built, manure is put in to a depth of 18 to 24 inches (the latter depth seldom required), and well trod down. This should be covered with about 6 inches of good garden soil, thoroughly fined. When a thermometer indicates that the heat in the frame has receded to 70°, planting may be done.

Where, however, one has not a frame ready, and the ground is frozen solid, the only thing to do is to build the hotbed *on* the manure, and in this case the manure should be put in a heat three or four feet deep, level, and extending at least a foot beyond the frame in every direction—for instance, for a 6 x 9 frame, the pile should be 8 x 11 feet.

In either case, the manure should be that of grain-fed horses fresh from the stables. This material should be procured several

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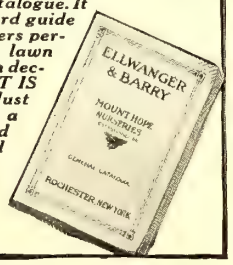

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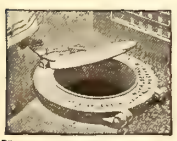

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days in advance, mixed with about a third of its bulk of leaves or old straw bedding, and trodden down in a compact heap. After three or four days, turn it over and restack, putting the "outside inside." Let it "heat" for several days more, and then put it into the frames. If it is still very hot, 90-100 degrees, do not put on the dirt till the temperature goes down a little.

USES OF FRAMES

The most important use of frames in connection with the home vegetable garden is in getting an early start. Weeks before you can sow seed outdoors, the temperature under the glass roof of the "cold" frame will enable you to begin operations there—early in March, if you use covering for cold nights, or, better, the double glass sash. The hotbed may be, of course, started any time, though February is the usual period.

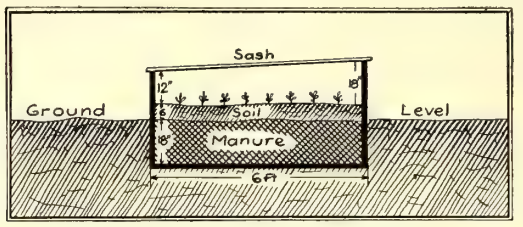

Diagram of permanent hotbed sunk in the ground

They are used together to the greatest advantage, as in this way the seedlings may be started in heat and transferred to the coldframes after "pricking off" or transplanting, at which time the temperature will be of course much milder than when they were planted.

Many gardeners sow the seed directly in the soil in the frame, but a better method, especially where only small quantities are wanted, is to use "flats"—wooden trays two or three inches deep and 13 inches by 19 inches or so in size. Cracker-boxes are the handiest things to make them from. Simply saw into sections and put on bottoms.

The soil used should be light and fine, and the seed covered very lightly. It should be up in from four to ten days, and ready to "prick off"—as indicated by the formation of the second true leaves in about four weeks for cabbage, cauliflower, lettuce, etc., and a little longer for tomatoes and slower-growing varieties.

The plants, when transplanted, may be put directly into the soil, but I believe better results are to be obtained by transplanting into flats, fifty to one hundred plants to the flat. Put a layer of about one inch of old manure in the bottoms of the boxes and cover with two inches of soil. By this method the plants may be shifted about as desired—a matter of some importance—and the roots, being confined within a limited space, are in much better shape for transplanting. Before actually setting out in the garden, these plants must be "hardened off"; that is, gradually exposed to the right temperature without protection. Cabbage, cauliflower, beets, lettuce, will stand a light freezing, especially if they are not allowed to thaw out quickly in the sunshine. In case they are nipped, douse with ice-cold water and cover with an old blanket or bags.

Tomatoes, egg-plant and peppers should not be started until March, as they require much more heat. They should be transplanted as directed, and then again as soon as they begin to crowd. For the second transplanting, use pots 3½ inches or 4 inches, if you can, as with them the best plants can be grown and the roots are not disturbed in transferring to the field.

Melons, squashes, cucumbers and corn, which also revel in warmth, may be started in April, if there is good heat. Cut firm sod into chunks four or five inches square,

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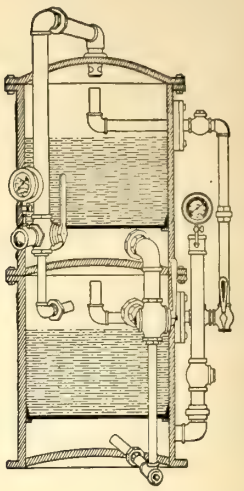

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and about two thick. Place these close together, grass down, and plant a "hill" on the surface of each, then covering with light rich soil. After all danger of frost has passed, set out in well-enriched hills.

Besides starting plants to set outdoors, lettuce, radishes, Swiss chard and other vegetables can be had almost all the year round. Instead of letting the frame lie idle in the fall, about August 1 sow some "Grand Rapids" or "Hothouse" lettuce. Another small sowing should be made about September 1. Transplant these later to the coldframe, using good rich soil, and cover at night only as freezing weather comes on. The plants should be put 6 inches to 8 inches apart each way—the "head" varieties needing more room. A third lot may be put into the hotbed. And they may be sown again in a hotbed in January, for setting out in the coldframes later. Radishes will grow rapidly in a temperature of only 40° to 45° at night, and can be sown between rows of lettuce, as they mature much sooner.

THE CARE OF PLANTS IN FRAMES

The most important rule for success with plants in frames is to give air whenever the outside temperature allows. When conditions permit, "strip" the sash off entirely. If it is too cold and stormy for that, raise one end, the amount of ventilation to be given depending upon the temperature. Maturing also must be attended to carefully. During late fall and early spring very little water will be needed—practically none. But as the days grow warm, great care must be taken not to let things get dried out, and in this connection a warning is given about leaving the sash on in later spring. A cold,

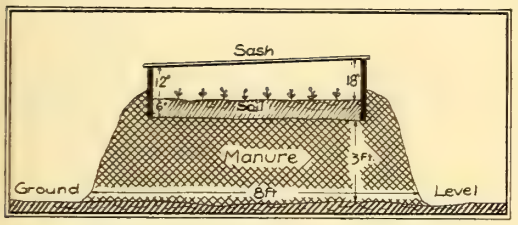

Diagram oi a temporary hotbed above ground

cloudy morning may clear off perfectly bright, and if the sash are on tight the temperature is likely to run up to 90° or 100°. The effect of this, if continued for two or three hours, will be serious or even disastrous.

A strict watch should be kept for insect enemies, but thorough ventilating and watering will keep them in check. Many other ways of getting good results and a great deal of pleasure will suggest themselves to the happy owner of a few sash. They are by no means limited to the suggestions offered above, but these may help to put him on the right track. After all, it is the experimenting and discoveries which one may make himself that furnish the keenest delight in gardening.

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LONDON winters are more remarkable for dismal drizzling rain and impenetrable fog than for snow and ice; but about half a dozen times in the last three hundred years truly arctic conditions have prevailed in that metropolis, and the River Thames has been frozen over so firmly that men and horses could go upon it. Each of these periods has been the occasion of a "frost fair"; booths have been erected on the ice; printing presses set up, various sports and games indulged in; and the whole population has joined in celebrating the rare event. The first great frost fair of which there is historic record was held in

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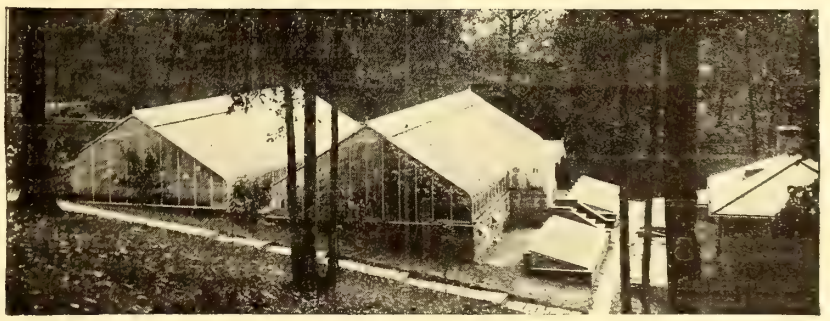

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January, 1608; but the most famous of all was that of 1683-4, which lasted from the beginning of December to the 5th of February. Evelyn gives the following description of this fair in his "Diary": "The frost continuing more and more severe, the Thames before London was still planted with boothes in formal streetes, all sorts of trades and shops furnish'd and full of commodities, even to a printing presse, where the people and ladyes tooke a fancy to have their names printed, and the day and yeare set down when printed on the Thames: this humour tooke so universally, that 'twas estimated the printer gain'd £5 a day, for printing a line onely, at sixpence a name, besides what he got by ballads, etc. Coaches plied from Westminster to the Temple, and from several other staires, to and fro, as in the streetes, sleds sliding on skeetes, a bull-baiting, horse and coach races, puppet-plays, and interludes, cookes, tipling, so that it seeme'd to be a bacchanalian triumph, or carnival on the water." King Charles II. and his family visited the fair, and had their names printed on a quarto sheet of Dutch paper, which is still extant.

During the frost fair of January, 1716, it is recorded that an uncommonly high spring tide, which overflowed cellars on the banks of the river, raised the ice fully fourteen feet, without interrupting the people in their pursuits.

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By HELEN W. PREVOST

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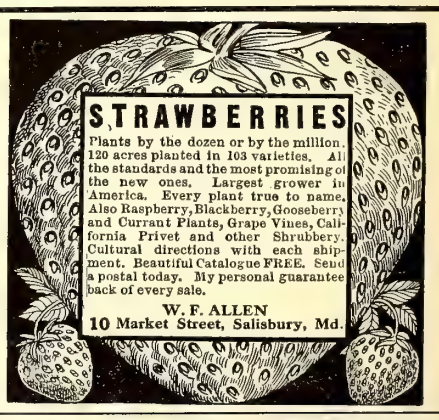

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use. Everything is made as perfect as possible with the express intention of giving the "feeling" which is to be found in the original. These pieces can be obtained in the white wood and were, at first, sent out so, but the preference seems to be for a complete representation and they are now for the most part made of mahogany and finished in the original style, or they are stained to represent the wood in which the original piece was made, giving, so far as is humanly possible, an exact reproduction in little of the historic and interesting pieces of Colonial days.

PLANTS INDOORS

By EMILY C. DAY

IT IS sometimes said that the city dweller is more fond of plants and flowers than he who walks amongst them daily over the fields. There is no doubt that the person in the country talks less about it, as a rule, though this may not be altogether conclusive. However this is, flowers are an almost indispensable part of our life and have much to do with keeping us civilized and balanced, and the need which is symbolized by the flower is a very vital one.

During the winter months, however, the town and city dweller must depend, for flowers, upon forethought and care, and given this, anyone may have plants which can reward any time and thought bestowed upon them.

In arranging windows there are some important general things to consider. One is, that though plants are charming companions they must not be allowed to take up all the window space and unless the room offers two windows only a few plants should be accommodated. These should be, furthermore, arranged in such a way that they do not occupy too much of the window space. They may be arranged on either side, two or three deep if the window-seat is broad. Another good device is to put a shelf across the middle of the window, a little from it so that the sashes can move up and down easily, and plants and trailing vines from this shelf, will have every opportunity for light, and ornament pleasingly the window without interfering with the convenience of the family.

The second consideration may be for the plants themselves. The condition of the light and the amount of sunlight they may reasonably be expected to receive must, of necessity, influence the kinds of plants chosen. If a window is without sun, ferns and other plants which are not dependent upon it will furnish sufficient variety to form a good window arrangement. What plants these are can be discovered by consulting any authority or the numerous journals which make information upon points like this their special care. If full of sunshine there are other sets of plants which may be considered. The choice of plants will be further influenced by the room itself, by its general style, and by the uses to which it is put. In some cases the glow of a few gay Geraniums can add a most acceptable note; in others some softer hued flower is in better keeping. The ornamental value of one's window of plants can be very much a matter of arrangement and the pots in which they are placed will do much to help or mar the effect.

The plants may be put merely into common terra-cotta pots and for general purposes scarcely anything better can be devised. Jardinières of porcelain, of pottery, of metal, of wood, are all possible, and used with discretion one or more can add a touch of distinction to the group. Here there is

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YOU gain nothing by waiting till spring—you lose much if you do wait. Evergreens of all kinds can be planted to special advantage all winter long. And we have the evergreens you want. Fine, root-pruned, sturdy specimens of the sort you want, in sizes from three feet up to thirty. They can be shipped by wagon or rail with perfect safety when bundled and packed Hicks' way.

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Done this way, your results will positively be better, because you have the choice of our large stock now—you can arrange to plant them early—we can ship early. You escape the worries of the spring rush and your trees and shrubs will do better, a good deal better, by having time to get established before the too warm days come.

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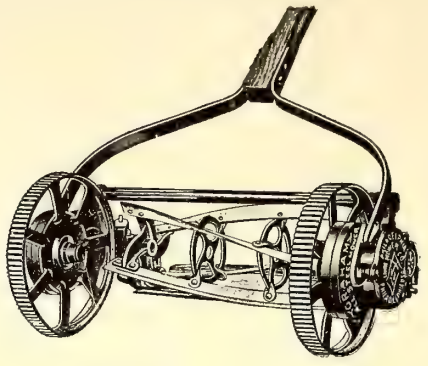

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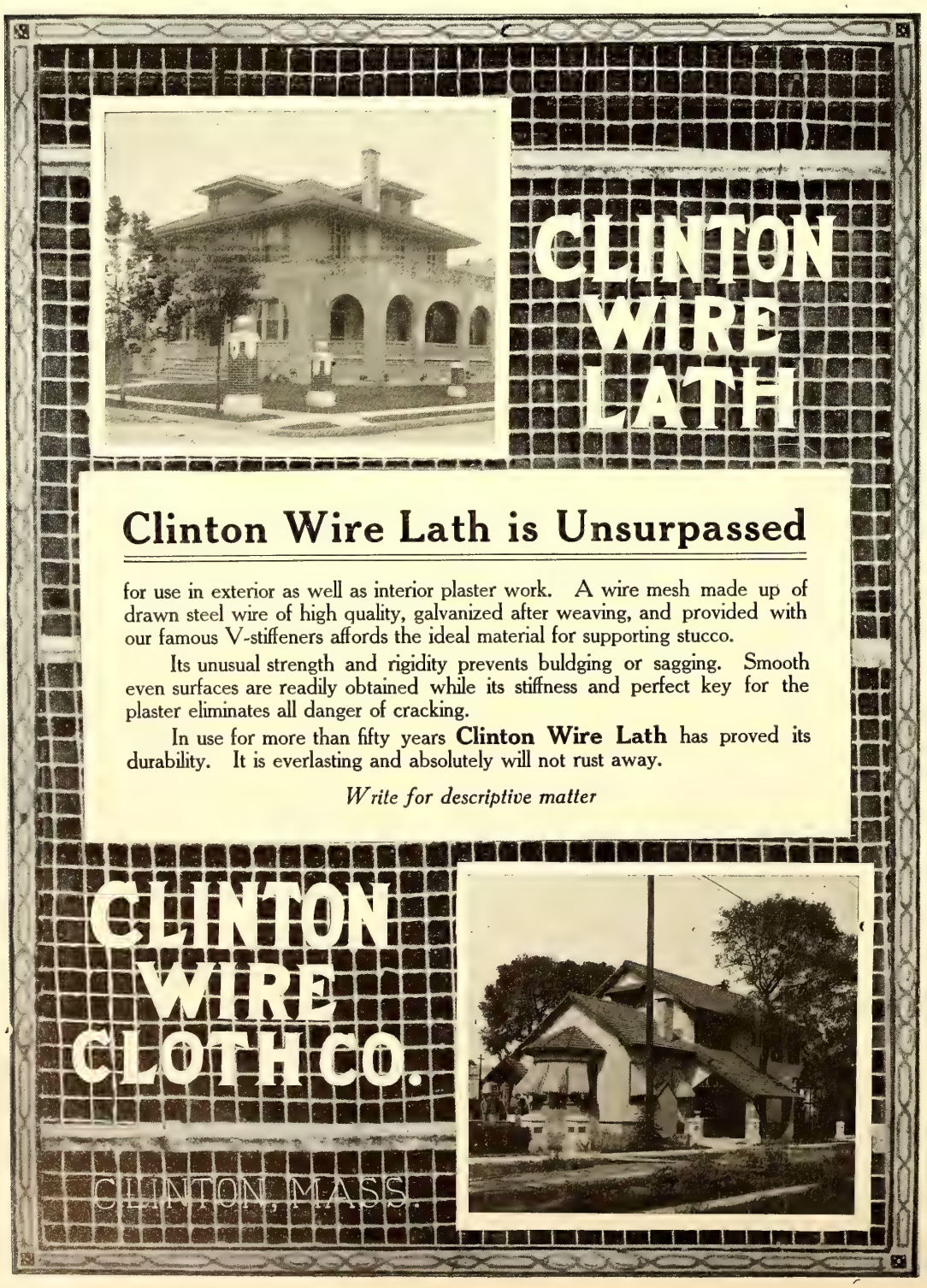

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every opportunity for the display of taste in considering form, color, size and appropriateness to the plant and place in the group. Hints for this use may be had from looking over the garden pottery intended for outside uses but intended for plant use. The flower pots, if wisely chosen, can do much to set off the beauty of the plants, to emphasize a portion of the window, and to influence the effect of it in relation to the room. Very attractive garden or window pots can be found by means of a little search and there are often attractive ones among the newer hand-made pottery.

COMPARATIVE SHRINKAGE OF MEAT IN COOKING

A RECENT consular report calls attention to the tests at the London Electrical Exposition which demonstrated that the shrinkage of meat when cooked in a coal range is somewhat greater than that of the same meat cooked in a gas range, and considerably more than when cooked in an electric range. A leg of mutton weighing 8 pounds and 8 ounces showed a shrinkage of 2 pounds and 11 ounces when cooked in the coal range, whereas a leg of mutton weighing 9 pounds showed a loss of 1 pound and 4 ounces when cooked in an electric oven. The shrinkage for the gas oven was 2 pounds and 4 ounces on an 8-pound leg of mutton.

NEW BOOKS

HISTORICAL ATLAS, by William Shepherd. New York: Henry Holt & Co., 1911. 8vo. 216 maps, 94 pages of text. Price, $2.50.

This is one of the most valuable atlases that has come to the reviewer's table in a very long time. In the first place, the data for the maps have been compiled in a most scholarly way by an expert, also with the advice and assistance of a valuable list of geographers and historians. In the second place, the maps, which, by the way, were printed in Germany, are magnificent examples of the cartographer's art. The combination of colors, which are apt to be so very crude in atlases of American origin, are toned down and admirably contrasted. It is very difficult to call attention to any salient feature of this book, as it is of uniform excellence. Among the very interesting maps, however, are those showing the various Routes of the Crusaders; the Ecclesiastical Maps of Europe; the very interesting map showing the routes of the Mediæval Commerce; the Seats of the Mediæval universities; the Mediæval Commerce of Asia; Plan of a Mediæval manor; the Age of Discovery; the Principal Seats of War in Europe in all Centuries; the Growth of Russia; Napoleon's Campaigns; the Unification of Germany; the Balkan Peninsula; the Commonwealth of Australia; the Partition of Africa; the Distribution of the Principal European Languages; the Colonies, Dependencies, and Trade Routes; Localities in Western Europe Connected with American History; Localities in England Connected with American History; the Indians in the United States; the New England Colonies; Campaigns in the American Revolution; Territorial Expansion of the United States; Organization of Territories; Slavery and Emancipation in the United States; Westward Development of the United States, and lastly, the Panama Canal. It would almost be ungracious to offer any criticism of this splendid work,

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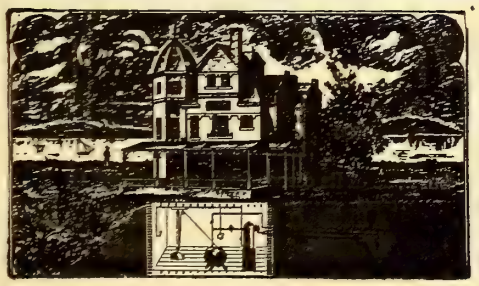

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but it is suggested that the 208th map, showing the seat of the Civil War, might have been made a two-page plan to greater advantage, as a map of this kind is very much needed.

THE GARDEN OF RESURRECTION. By E. Temple Thurston. New York: Mitchell Kennerley, 1911. Cloth, 16mo. Price, $1.30 net.

Those who have read "The City of Beautiful Nonsense" will find in "The Garden of Resurrection" the same exquisite grace in the telling of the tale that characterizes all Mr. Thurston's delightfully-written novels. This is a romance of real life—the life of to-day making appeal through its tenderness to all who believe in the grace of love. The reading of it leaves behind the perfume of that grace in the mind and heart for many a day, and while such writers produce such books, English literature will continue to be graced with the sort of books that are, in their very spirit, as uplifting as they are entertaining. It is possible that the fineness of Mr. Temple Thurston's manner of telling his story will not appeal to the more coarse-grained readers of fiction, but the world needs such writers and needs to find readers open to the appreciation of such works.

MOTHER CAREY'S CHICKENS. By Kate Douglas Wiggin. Boston and New York: Houghton-Mifflin Company, 1911. Cloth, 12mo. Illustrated. Price $1.25 net.

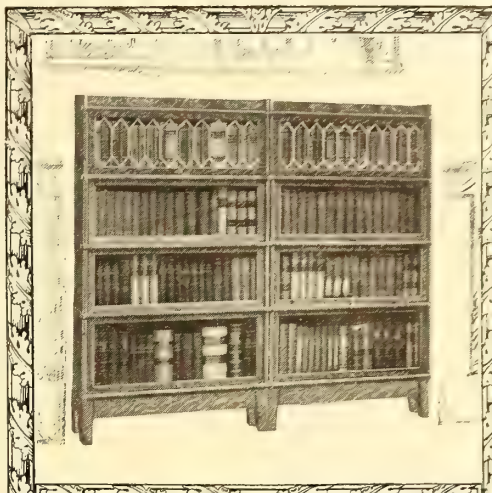
Few writers have been so thoroughly successful in maintaining the standard set by their earlier stories as has Kate Douglas Wiggin. "Mother Carey's Chickens is an ideal story of an ideal family, with the dominant note—a mother's love for her brood. Mother Carey and her four children are taken through sorrow and privation to ultimate happiness and success. Mrs. Wiggin has developed and molded her characters into strong and loving personalities, widely different in type, but knitted together by the ideal family bond—love and self-sacrifice.

THE BOOK OF GARDEN FURNITURE, by Charles Thonger. New York. John Lane Company. Cloth crown, 8vo. Illustrated. 100 pages. Price, $1.00 net.

Mr. Thonger's volume in the series of Handbooks of Practical Gardening, is a guide to the selection, construction and arrangement of the various buildings, trellises, pergolas, arches, seats, sun-dials, fountains, and other structures which necessity or taste may suggest as additions to our garden ornaments. It is copiously illustrated and should prove of service to everyone planning home grounds.

THE HOUSE FLY. Disease Carrier. An Account of Its Dangerous Activities and of the Means of Destroying It. By L. O. Howard, Ph.D. New York: Frederick A. Stokes Company, 1911. 8vo. 312 pages. Illustrated. Price, $1.60 net.

Here is a timely work on a subject intimately touching the public health and welfare. The recent increased agitation against house flies and the danger they represent is proved to be a sane warning against a very real menace. The author gives a life history of the fly, and, assisted by well-executed plates that show its organism and habits, cites exact experiments in proof of its activities as a disease carrier. The array of evidence is conclusive, and most interestingly presented. The reader is then enlightened as to the remedies and preven-



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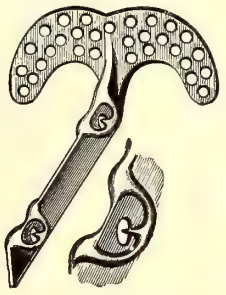

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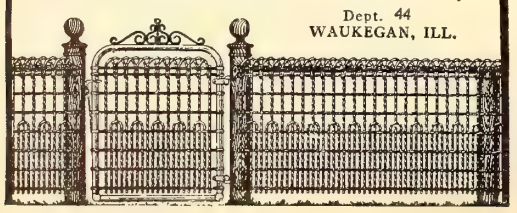


tive measures. These include the prevention of breeding by treatment of all places in which breeding is possible; keeping flies out of the house, and killing them as they enter. Some ten millions of dollars are expended each year in the United States alone in an attempt to screen dwellings against the entrance of flies and mosquitoes. Another not inconsiderable item of expense is incurred in trapping and killing the pests after an entrance has been effected. With a little harmonious action on the part of individuals, Boards of Health, and communities, the breeding places might be rendered harmless and these expenses avoided. Until this comes about, however, housewives may read in the latter part of the volume of almost every device ever thought of for disposing of the mature fly. As Chief of the United States Bureau of Entomology, Mr. Howard's utterances should carry authority and inspire confidence.

THE BOOK OF TOWN AND WINDOW GARDENING, by Mrs. F. A. Bardswell. New York. John Lane Company. Cloth crown, 8vo. Illustrated. Price, $1.00 net.

This book is planned for those lovers of flowers who are compelled to live in town, and should be a helpful guide also to those who are ignorant of the art of growing flowers. The advice given in its pages for growing plants under the adverse conditions prevailing in town, cannot fail to make a strong appeal to the town and window gardener.

THE BOOK OF THE HONEY BEE, by Charles Harrison. New York. John Lane Company. Cloth crown, 8vo. Illustrated. 132 pages. Price, $1.00 net.

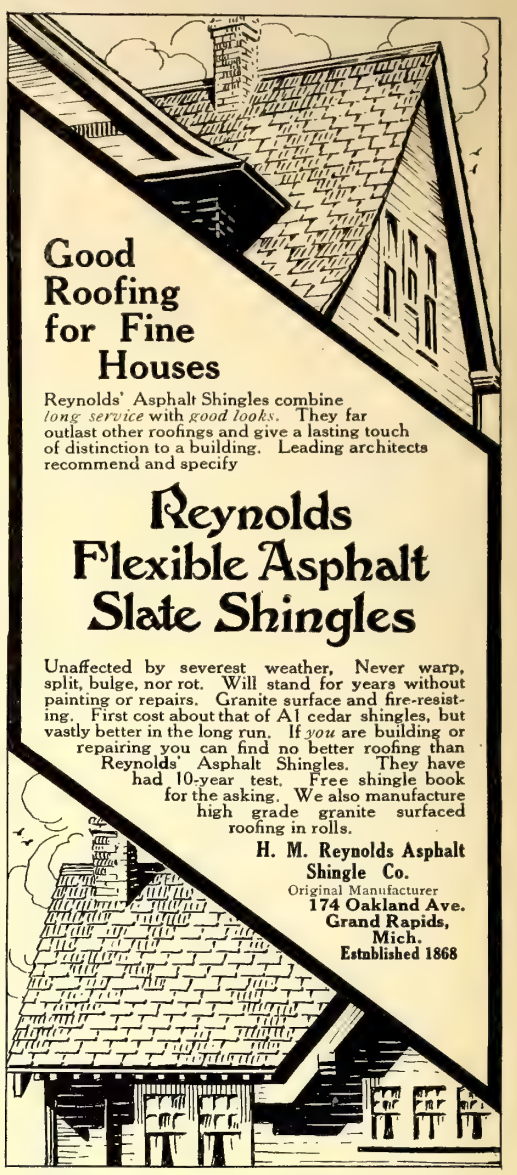
From the time of Virgil to our own day bee-keeping has been the branch of husbandry which has peculiarly appealed to the temperament of the meditative man. Therefore everyone who has a place in the country should be interested in the subject treated authoritatively by Mr. Harrison in the various chapters of the four sections of his well-illustrated book. It must be remembered that this is the work of an English authority and therefore written primarily for English readers. However, a handbook of this sort will be just as welcome to the American reader.

PHOTOGRAPHING FLOWERS AND TREES, by J. Horace McFarland. New York. Tennant & Ward. 1911. Paper, 16mo. Illustrated. 93 pages.

There is hardly a more interesting and fascinating branch of photography than that discussed in the pages of this little book. The author gives invaluable hints to the amateur in the matter of success in depicting scenes by lens and camera, and forms and suggestions of color values of assistance in the most satisfactory manner. In fact, no one interested in decorative photography should be without a copy of the book.

TO MOTHER, by Marjorie Benton Cooke. Chicago: Forbes & Co., 1911. Price, 50 cents.

It is seldom that one can whole-heartedly indorse present-day poetry such as this. The mother-theme, too, must be well handled not to be made ridiculous by distortion of values on the one hand, or by a cheap verbosity unsuited to meter on the other. This being so, we take the greater pleasure in acknowledging the sweet dignity and the repressed yet strong appeal of the



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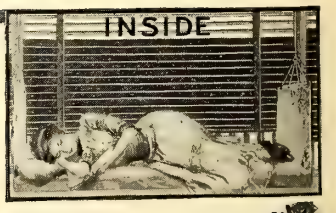

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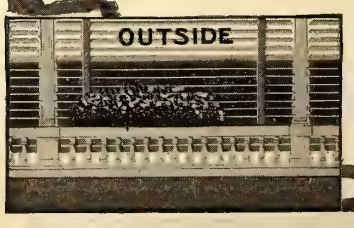

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author's lines. For all mothers, and for all children of mothers, this little gift book must strike a true and uplifting chord.

SPICES—Their Histories. By Robert O. Fielding. Seattle, Washington: The Trade Register, Inc., 1910. 16mo. 61 pages. Illustrated. Price, 50 cents.

"Spices" is a reprint in booklet form of several articles originally published in the *Trade Register*. Its information is particularly directed toward retail grocers, and is alphabetically arranged under the various spice-names, each section consisting of a description of the variety, its manner of growth, and its chief uses, with an occasional caution as to the substitutes of the market.

THE AMERICAN SHOTGUN. By Charles Askins. New York: Outing Publishing Company, 1910. 8vo.; 321 pp. Price, $2 net.

From the shot-peppered cover design to the aphorisms which close the last chapter, this book will delight the devotee of the gun. His hands will itch to encircle the stock and barrel of some of the high-grade, richly-chased arms shown in the half-tones. The writer puts forward his subject matter in that hearty, zestful way so typical of the open-air man. He discusses the various makes, both foreign and American, in a fair, judicial manner and, aside from their points of construction, manages to impart much useful lore in regard to fitting the gun to the man; the care of the gun; the science of wing-shooting, and the psychology of the sport, with hints on the peculiarities of the different game birds, and a final word on field etiquette.

FOODS AND THEIR ADULTERATION. By Harvey W. Whiley, Ph.D. Philadelphia: P. Blakiston's Son & Co. 8vo.; 641 pp.; 11 colored plates; 87 illustrations. Price, $4 net.

As one of the most-talked-of men in the country, Dr. Wiley needs no introduction. Written primarily for the benefit of the public, "Foods and Their Adulteration" will be appreciated by scientists, physicians and foodstuff manufacturers and dealers, as a dispensary of information with which they are deeply concerned. Dr. Wiley has laid stress upon the fact that suitable feeding and proper nutrition will do wonders in warding off disease after it has once been acquired. The general headings under which the subject is handled are: "The Origin, Manufacture and Composition of Food Products; Infants' and Invalids' Foods; the Detection of Common Adulterations; and Food Standards." The present issue is a revised second edition, enlarged by a hundred pages. The article on infants' and invalids' foods constitutes the most important addition, and describes their preparation and care. The vital necessity of the natural supply of milk for infants is insisted upon, and there follows a consideration of the substitution of fresh cow's milk, modified to resemble closely the natural sustenance of the infant. Fads and extremes have been avoided. The suggestions are kept well within the bounds of common sense and the information is based upon ascertained facts. The Food and Drugs Act has done much to benefit the people and protect their health and their rights, but the extension and continuance of such benefits depends upon educating the people up to the point of knowing their own rights and needs, and insisting upon having them properly supplied. Such works as this of Dr. Wiley's are necessary to the inculcation of a saving knowledge in this generation.

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We could build them cheaper
But we won't
We would build them better
But we can't

THE dealer who sells you DIAMOND TIRES is thinking of *your* profit as well as his own–he is "tire-wise" –and believes in trading up–rather than trading down.

¶ He can buy cheaper tires than DIAMOND TIRES, and make a larger one-time profit, but he cannot sell you *better* tires.

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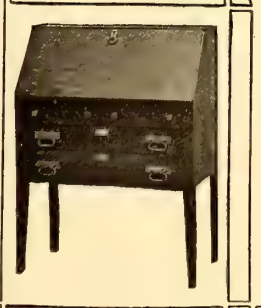

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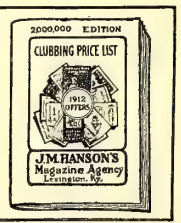

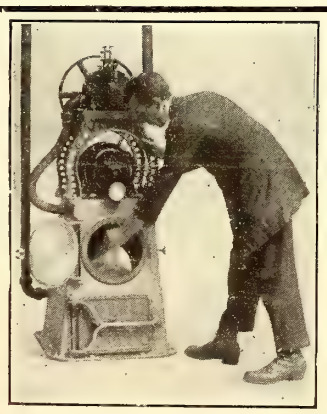

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BASSETT & WELLER **Hammonton, N. J.**

MINIATURE TREES AND GARDENS AS ORNAMENTS

By FLORENCE A. DAWSON

SMALL trees may provide a means of securing a very distinctive and pleasing ornament in the house. The small Fir and other trees, set formally in garden pots and placed in doorways, will immediately come to mind in this connection; but while these, especially if chosen very carefully as to size and the appropriateness of the pot in which they are placed are attractive it is not always possible to give them room; yet this does not entirely exhaust the suggestion. Very small trees, however, can be used within the house. It is quite possible to get such miniature trees oneself from the wood or meadow when one makes a trip to the country, and then to select some unusual pot for them, as a setting; or the Japanese dwarf trees, if one is fortunate enough to be able to secure one, can be made a delightful point of ornament in a living- or reception-room. To anyone at all familiar with the meaning attached to the use of the tree from all time, and especially the symbolism appropriate to it as used in the East, its value as an ornament will be greatly enhanced by the significance which it carries.

An ornament which is closely akin to this of the tree, is the miniature "Japanese garden." This need not be Japanese at all, the hint merely being taken from these people and from their sometimes treatment of their dwarf trees. To make such an ornament, take a shallow dish of pottery—any desired sort or shape or color—and put some pebbles in the bottom, covering these with about two inches or less, according to the size of the dish and of the "garden" one proposes to have. In this is planted, closely as you please, any sort of tiny tree (a few inches high), which can be captured in the fields or woods as it is just starting to grow and is well above the earth; any kind of fern or other plant which seems sufficiently harmonious with those already chosen. Plant these in pretty closely and cover over with some pretty moss, all the space that intervenes.

Such a "garden" as described may be a few inches or a foot across and small ones which respond nicely can be used as centerpieces for the table. Of course, the proportion of the plants used will be considered in planting them, and a pebble representing a "rock" can be permitted. How far the picturesque may be carried and how far the interest should be kept upon the growth itself of this tiny vegetation, is a matter to be decided by the taste and preference of the maker of it. It will astonish anyone who makes one of them for the first time, to find that the little things do really grow and apparently thrive. Of course, they must be frequently and carefully watered.

THE INDEFATIGABLE MOTOR TRUCK

IN a paper read before the Electric Vehicle Association of America, Mr. Hayden Eames called attention to the fact that horse-drawn vehicles must remain idle for a certain portion of the day in order to rest the horses. A recent investigation showed that the teams of the different express companies in New York city were idle forty per cent. of the total working hours, much of this idleness being due to the fact that the horses needed rest, and that the periods of loading the wagons had to be suited to these rest hours. The motor vehicle, on the other hand, requires no rest, and hence requires no adjustment of the loading hours.

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Nurserymen, Florists and Planters **RUTHERFORD, N. J.**

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I love this picture because it links together my dearest possessions—family, friends and flowers. In my book I call it "A quiet afternoon—the world within sheltered from the world without." Wyomissing Nurseries have grown from the flower garden which this picture shows as it was last summer.

I CORDIALLY INVITE YOU TO WRITE FOR FARR'S BOOK OF HARDY GARDEN PLANTS—

if you have a hardy garden or plan to make one. I have prepared a complete new book describing the gems of Wyomissing Nurseries, and my friends pronounce it one of the handsomest they have ever seen. The whole book breathes the spirit of Wyomissing Nurseries and my very earnest wish is to be of help to you in establishing a garden that will be the pleasure to you that mine is to me.

It tells of Irises, Peonies, Delphiniums, Phloxes, Oriental Poppies, Aquilegias, and a host of other grand Hardy Plants, in a way that will make you love and want them, too. Don't merely say "Please send me your book," but tell me about your garden, what you have done, and what you hope to do. If I can help you with your garden, I want to do it.

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The Fadeless Beauty of The Hardy Perennials

The Fadeless Beauty of the Hardy Perennials

Lends to the garden in which they grow a charm that is as perpetual as the beauties of the flowers that compose it. The inspiration for the best gardening of recent years has come from gardens planted long ago. They have grown into richer, fuller and mellower beauty instead of fading with time, and on the same spot have outlived three generations of owners.

Permanent Garden and Landscape Effects

Are more and more the aim of our most successful outdoor architects. We are learning to take the finer, more enduring old gardens for our models, welcoming back the all-the-year procession of yesterday's hardy flowers. Yearly we find new use for them, entirely within the bounds of real landscape art. And the tree gardener welcomes the return of the hardy perennials, giving him permanent effects with less expensive materials.

"Hardy Garden Flowers," A New Biltmore Book

This spring's contribution to garden literature by Biltmore Nursery is a tribute to the merits of the permanent plants, which we have named "Hardy Garden Flowers." In form and style it maintains the high standard set by our earlier catalogs. The illustrations, all from special photographs, suggest many pleasing and varied forms of hardy garden planting, from the simple dooryard effect to the elaborate formal attainment. The cover, in full rich colors gives a hint of the exquisite beauty of the Anemone Japonica, Japanese Windflower. The descriptions are full and complete, and clearly indicate the purpose for which each hardy flower is best adapted, yet are free from purely technical terms.

"Hardy Garden Flowers" will be mailed free, on application, to any one who contemplates the planting of a garden.

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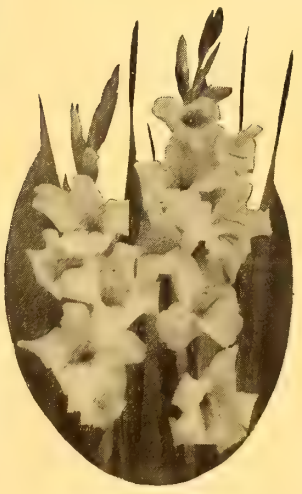
Peace—The Grandest of All Gladioli—You Want It in Your Garden This Year

It is a white, absolutely unapproached; a magnificent flower, wonderful in its purity, size and vigor, It will be a delight to you every hour of every day it is in bloom. Without it your garden will be incomplete. It is the best variety Mr. Groff, the greatest hybridizer of Gladioli in the world, has introduced. I specialize in Groff's Hybrid seedlings more than any other grower.



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It is because I grow nothing but Gladioli, having over 15,000 varieties. I live with them, study them, love them. Every bulb I send out is large, sound, healthy. No matter what your soil, these bulbs will bloom for you. Let me send you

A Little Book Free: "The Uses of the Modern Gladiolus"

It will tell you just how to grow this royal flower and show you many uses for it, outdoors and in. It describes this wonderful new variety, Peace, and others of the best named varieties in the world. Many are reproduced in their exquisite natural tints by the wonderful new French color process. Write for a copy to-day.

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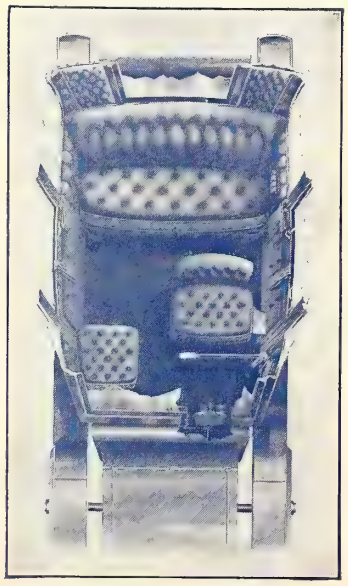
FULLY EQUIPPED, $3,500

The Town Car Luxurious for All Seasons

ON WINTER'S SNOW, and ice-clad avenues, or summer's smooth oiled boulevards, Silent Waverley Electric Limousine-Five gives the same sure, dependable performance, the same ideal luxury of town travel. Frost, snow and mud do not detain it. Extremes of weather do not put it out of commission.

To freedom from noise, richness of upholstery and furnishing which distinguish the Silent Waverley Electrics, the Limousine-Five adds *roominess* which fulfills the last desire.



Sectional View from Top
Showing Seats for Five Adults

Silent Waverley Electric Limousine-Five

"Full View Ahead" **Design and Construction Patents Applied For**

Affords full room for five adults, in its deeply upholstered seats—and no one is forced to sit with back against the front window. The driver thus has full and unobstructed view of the thoroughfare at all times. Full elliptic springs front and rear give riding qualities of unequalled ease. The car operates with equal success on solid or pneumatic tires. It is the family car that needs no chauffeur. The No-Arc Controller is so simple that a child may run it.

Send for the beautiful Waverley Art Book on Town and Suburban Cars. It shows ten models. Prices $3,500 down to $1,225. Also the Waverley Catalog of Commercial Vehicles. Exide, Waverley, National, Ironclad or Edison Battery.

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Annual Horticultural Number

AMERICAN HOMES and GARDENS

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Vol. IX. No. 3

MUNN & CO., Inc., Publishers
NEW YORK, N. Y.

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HUPP~ YEATS

ELECTRIC COACH

IT is a curious fact that coach building was one of the last of the arts to be modernized. The coach body of the middle ages was hung high because the coach was designed to pass and did pass constantly through seas of mud, through bogs, swamps and shallow streams. Notwithstanding the wonderful transformation wrought by modern street paving, coach makers clung blindly to this design until the advent of the Hupp-Yeats. The result was a top-heavy, awkward and dangerous construction, entirely out of place under modern conditions.

The Hupp-Yeats introduced the safe, sane, low-hung construction which an authority has stamped as the first advance in coach construction in over a century. This design provides a car with which skidding and swerving is an impossibility under ordinary conditions; a car that is as easy to enter or leave as to step from one room to another; and a car which possesses a grace and beauty that the high-hung electric never had. The desirability of this design is shown by the wide attempts now being made to copy it. The appointments of the coach are in keeping with the exquisite beauty of the design.

There are six models, designed to suit every town-car need. Regular equipment includes Hycap Exides Battery and Goodyear long distance No-Run-Cut-Tires; Motz Cushion Tires at additional cost.

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POULTRY HOUSE CONVENIENCE

By E. I. FARRINGTON

KEEPING poultry in a poorly designed house and with few conveniences for making the work easy is likely to prove such a discouraging task that the hens will not secure the attention which is necessary in order to have them give a good account of themselves. A good house must be high enough so that the attendant will not be obliged to stoop when working in it, with a door wide enough so that the litter can be removed without difficulty, with windows or cloth-covered frames that work easily and with fixtures that may be detached with but little effort.

Of course, it is not necessary that the house should be high enough in all parts to permit a man to stand upright. The shed-roof type is the most common and if it is seven feet high in front, that will be sufficient, and it may drop to four and a half feet at the rear. If the house is to have no floor and is built on ground at all inclined to be wet, it will be necessary to fill it in with nearly a foot of earth in order to make the surface inside the house considerably higher than the outside level. Then several inches of litter probably will be thrown in. All these things should be considered when a house is being constructed, or what may seem ample provision for headroom will prove insufficient. And it is extremely annoying to be in a house not high enough to stand erect in where it is necessary to work. It is not well, though, to go to the other extreme and build a house which is higher than needed, for it will be cold, besides involving a waste of money.

The perches, dropping board, nest boxes and feed hoppers should be so arranged that they may be easily removed. In no other way can a house be kept sanitary. The dropping board may rest on supports at each end and the perches should drop into slots in a short strip of joist. Some poultry-keepers allow the dropping boards to rest on small wooden horses, which may also be taken out. This is a good plan and may be improved upon by attaching a support to the dropping board to carry the perches. Then the lice have no direct route to the hens. Some genius has invented a metal perch bracket which has a little cup to contain kerosene through which the vermin would have to pass in order to reach the fowls. When perches are detachable, however, they may be quickly removed and given a kerosene bath, which will free them from any lice they may harbor. The mites have a way of collecting under the perches in summer—red blotches of them, the color being imparted by the blood they have sucked from the long-suffering hens the previous night. It is of no use for the hens to dust, as these mites infest them only at night. There are other kinds of lice which are kept in check by the dust bath, however.

It is a good plan to take down the muslin-covered curtain frames in the Spring—just about the time, we will say, that Spring housecleaning is going on in the owner's abode. They are easily removed without

"POMPEIIAN BRONZE"
Permanent Screen Cloth

Reg. U.S. Pat. Off.

The Attractiveness of "Pompeiian Bronze."

You cannot find a more pleasing screening material than enduring "Pompeiian Bronze." You cannot find one more in keeping with the beauties and refinements of your home. It fits harmoniously into any scheme of decoration or architecture — never becomes weatherbeaten or unsightly and needs no painting or renewing. Neither salt mists nor sulphurous fumes can harm it. "POMPEIIAN BRONZE" cannot rust — it will resist all the elements save fire.

This distinctive screen cloth is not dipped or coated, its permanency and beauty are due to the material from which it is made — bronze.

Rescreen this spring with "POMPEIIAN BRONZE" and end the bother and expense — for good. If you are building — have your architect specify it — nothing else gives the same satisfaction or service.

Your dealer should have "POMPEIIAN BRONZE" in stock and you can readily recognize it by the removable red string in the selvage, but if he does not have it write direct to us.

Write us today for interesting "POMPEIIAN BRONZE" booklet.

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The Red String

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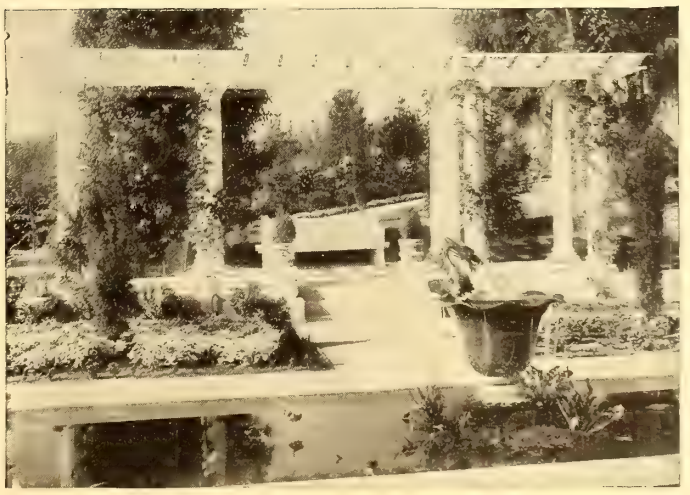
Our catalog A 27 shows illustrations of pergolas, sundials and garden furniture. It will be sent on request.



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THEY CAN NOT COME APART KOLL'S PATENT

Suitable for

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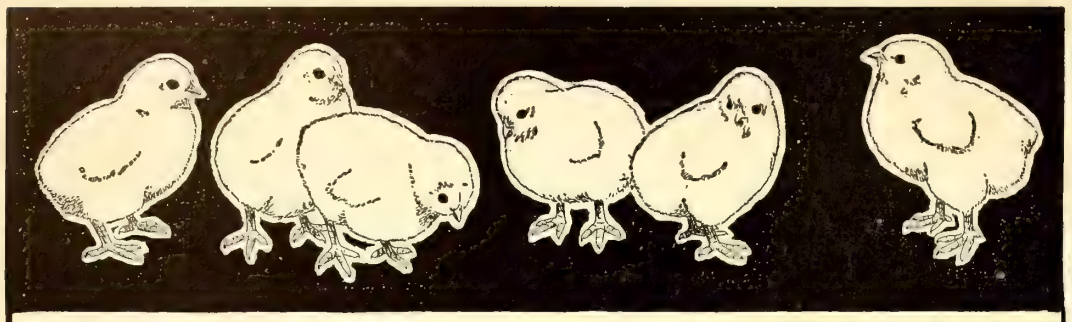
Poultry, Pet and Live Stock Directory



Two Poultry Books Free

If you will send us your name and address we will mail you two valuable Poultry books without cost to you or obligation on your part.

Or for $3 00 we will start you in the poultry business.

We will sell you "The Poultry Review" (12 copies), "The Philo System Book," the new book, "Making Poultry Pay" and "A Little Poultry and a Living," all for $3.00 (15 copies) and to show you how you can make money by the wonderful Philo System we will include and ship you without extra charge:

Six thoroughbred baby chickens, 1 brooder to raise them in, one package "Philo Perfect Baby Chick Food," two galvanized feed and water throughs.

We are making safe shipment during winter weather. We can do this because we have the largest and best equipped poultry plant and buildings in the world. Our new hatchery has a capacity of 1,800 Cycle Hatchers and we are hatching big, strong chickens every week of the year.

This offer limited to 50,000 orders—and will be good for at least 30 days. Mail order to-day and let us help you to start the best business in the land.

The reason that we are making you this wonderful offer is the desire to show you how much money you can make by taking up the wonderful Philo System coupled with the assistance which the Poultry Review will give you during the year.

Please bear in mind the two distinct offers. They are:

1. Two valuable poultry books free if you will send us your name and address on a postal card.

2. Six thoroughbred chicks, one brooder with feed troughs, and complete instructions for building patented coops with every order for $3 00 worth of the latest and best poultry reading, fifteen volumes in all. Write to-day.

TESTIMONIALS

New Bedford, Mass., Dec. 13, 1911.

Mr. E. R. Philo, Elmira, N. Y.

Dear Sir:—I am very glad to inform you that my White Orpington chicks are all alive and smart. They are just six weeks old and weigh 1¼ pounds. I have them in an Economy Coop and they are growing and developing finely.

M. Goulart.

Scranton, Kansas, Nov. 1, 1911.

Mr. E. R. Philo, Elmira, N. Y.

Dear Sir:—Yours of October 26 on hand and beg to say that I have raised all of the White Orpingtons so far. Their average weight is 2¾ pounds each and not quite three months old yet. Being a beginner it was quite interesting to watch their development.

Walter Burkhardt.

Marathon, Fla., Dec. 5, 1911.

E. R. Philo, Elmira, N. Y.

Dear Sir:—The little one day old chicks I bought of you are thriving, and all who see them remark about their thrifty, healthy appearance.

I do not expect to lose one of them from weakness or sickness. I refused $20 for them last week.

E. J. Devore.

Paconian Springs, Va., Nov. 23, 1911.

E. R. Philo, Elmira, N. Y.

Dear Sir:—Your letter of the 20th received, and in reply can give an excellent report. I have had splendid success, have five out of six. Out of the six you sent there were four pullets and two cockerels. My White Orpingtons are a credit to you as well as myself, and they have been raised almost entirely by the Philo System. If at any time I need any poultry supplies you will hear from me.

Mrs. J. G. Jacobs.

Augusta, Ga., Nov. 3, 1911.

E. R. Philo, Elmira, N. Y.

Dear Sir:—The six baby chickens I bought from you arrived all O. K. They were, however, delayed about twelve hours in reaching me, but they were bright and active. I received them at night and the next morning they were hungry as wolves, and I made them the custard you suggested. I am greatly pleased with them and expect to make good later on. They are the most active chicks I ever saw.

Dr. W. S. Wilkinson.

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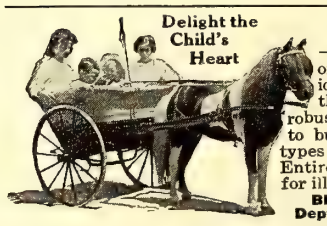

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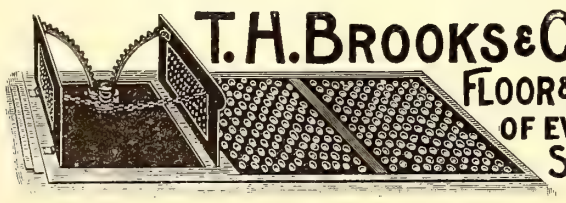

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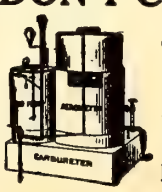

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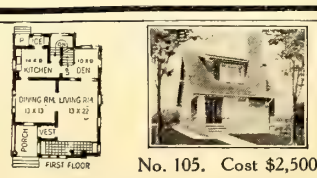

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the use of a screw driver if the hinges are the kind which come in two parts and are held together by a pin. It is necessary merely to pull out the pin.

A nest box may be fastened to the wall by having two holes bored in the back to fit two long screws. Then it may be lifted off at any time and thoroughly cleaned. Nests do not have to be dark, but it is well not to have a platform in front for a hen to stand on. There is likely to be quarreling then between a hen which has taken possession of the nest and another one which covets it. An orange crate makes an excellent double nest except for the very large breeds.

There are feeding and watering devices almost without number. The fact is, though, that most of the practical poultrymen, to whom time is literally money, use a pail on a shelf for watering their birds. There is nothing simpler. One filling will last all day; being above the floor, no litter is scratched into the pail and the exercise which comes from jumping up and down is good for the fowls. It is needless to say that a low shelf is used, so that they will not be injured when jumping to the floor.

Dry feeding has greatly simplified poultry-keeping, and with this method has come the hopper. There are many styles for sale, most of them being so arranged that they may be hung on the walls. Some will hold enough dry ground grain for a week or more. There are small ones for grit, oyster shells and charcoal. It is an easy matter to make a hopper at home, using a cracker or soap box. An inspection of a commercial hopper will show anybody how to do it. Grit and shell hoppers may be made from cigar boxes in a few minutes. They are better than open boxes because cleaner and less wasteful. Some of the hoppers sold at the stores have a distinct advantage in that they are made of metal and have a hood or cover which may be dropped over them at night, thus keeping out rats and mice. A cleverly designed little chick hopper is made rat-proof merely by turning it on its side.

In many cases the loss of grain eaten by rodents is considerable. It may be avoided by using one of the hoppers just described for dry mash and a patented but fairly inexpensive feeder and exerciser for whole or cracked grain. This device is a good one for the man with a few hens but involves too large an investment for the owner of a large flock. Below a reservoir of metal containing the grain is a lever, at the bottom of which is a wire tube, through which corn or other grain shows. The fowls peck at this grain, the lever is moved and down comes a shower of grain. The birds will work at this device much of the day and clean up all the grain which is dropped. When it is used, only a little litter is required.

One prominent poultry-keeper feeds soft mash once a day and puts it in a trough which extends the entire length of the front of the long house which he uses. When the house was built a very wide sill was installed in front, and the part of this sill which came inside the house was made into a feeding trough. Many fowls may be fed at the same time and they cannot get into the trough.

Many poultry houses are built with doors which are far too narrow. In order really to be as convenient as possible, the door ought to be sufficiently wide so that a wheelbarrow may be pushed through it. This is especially true of a house which is larger than eight by ten feet, for it will greatly

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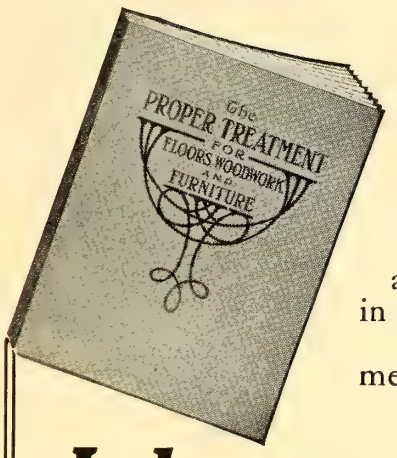

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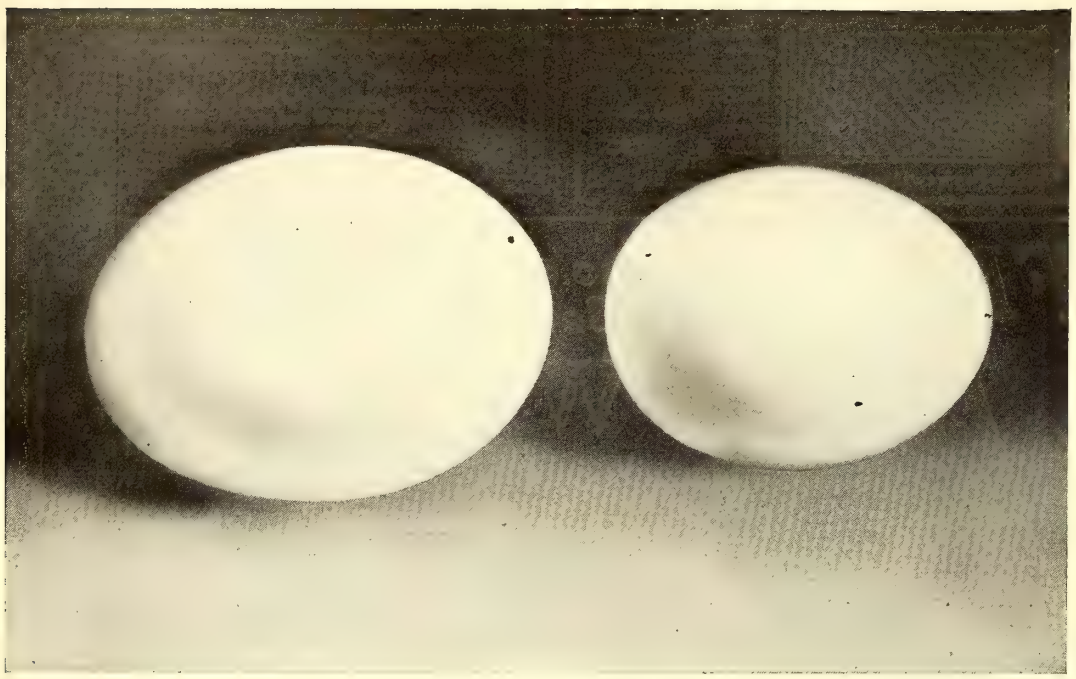

From a photograph of an average Yama Black Minorca Egg. 34 ounces to the dozen.

From a photograph of the average first-class egg. 24 ounces to the dozen.

SOME YEARS AGO WE WERE PERHAPS WHERE YOU ARE TODAY—what kind of chickens to keep—and where to get a start with the right kind. We have tested seven varieties, have had our experiences—***and for eggs Black Minorca.*** They have all the good qualities of the egg laying varieties of chickens (non-setters, etc.) and the size of the birds themselves makes them more desirable for the table than the usual small egg layers. They have one of the longest breasts of any variety, which insures an extra amount of white meat.

Yama Black Minorcas are the Aristocrats of the Poultry World

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In 1911—FIRST PEN—FIRST COCK—SECOND HEN—THIRD PULLET—FIFTH and SIXTH COCKERELS—and the competition there is the keenest, you know. ***Send for Mating List.***

YAMA FARMS Yama-no-uchi, Napanoch, N. Y.

NEWTON COSH, *Manager Poultry Department*

References: Security Bank, New York; First National Bank, Ellenville, N. Y.

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expedite the cleaning of the house as well as the work of covering the bottom with fresh sand. Poultry-house doors should always be built to swing out; otherwise the accumulation of litter within will make necessary a wide board at the bottom over which the attendant will have to step every time he enters and which will interfere with the use of a wheelbarrow. When there is a door between two pens it should swing both ways in order to have it most convenient and it is well to have such doors also wide enough to permit the passage of a wheelbarrow.

HINTS ON HOUSE FLOORING AND INTERIOR FINISH

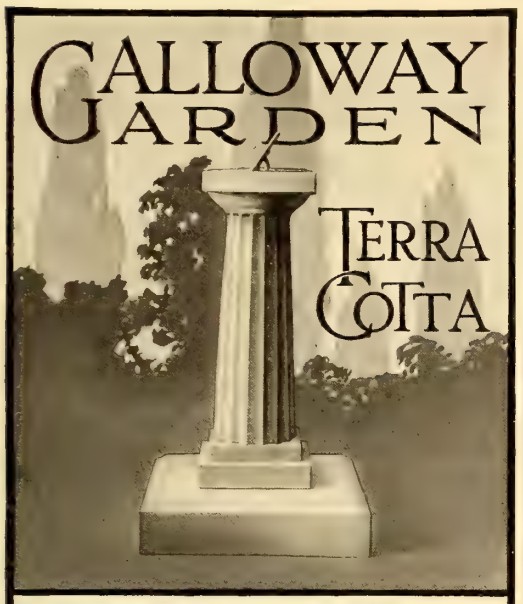
FEW parts of the house attract more attention than do well finished floors and fine trim. This article will give information as to the best woods to use for the different rooms both for the floors and the finish, and will also tell in language which can be understood by the non-technical reader how flooring and interior finish is sawed; for the manner in which it is sawed makes a vast difference as to its wearing qualities in either case, and also in the appearance of the finished material.

QUARTERED OR PLAIN TRIM AND FLOORING.

There is a large difference between "plain" and "quartered" material. I knew a man who greatly admired oak as a wood for flooring and interior finish. When he built his house he specified "oak" finish for a number of the rooms; and also for those same rooms "oak flooring." He was very much disappointed when the house was completed to discover that he had in both instances "plain oak." Let me explain what is meant by "quartered." It refers to the manner in which the wood is sawed. It is beyond the scope of this article, as I explained in the introduction, to go into technicalities, so I will simply state that "quartered" material allows the beauty of the grain to show, and its wearing qualities are much increased. My friend who ordered "oak finish and flooring" did not know of the different methods of sawing, and he also did not know that "red" and "white" oak can be purchased. Consequently when he specified "oak finish and flooring" he used very indefinite language, and "plain" trim and flooring were given him. He should have ordered for both trim and flooring, "quartered white oak flooring and trim"; and if he were willing to pay for the best possible material, he should have further specified that it should be free from all defects. Such material is usually called "clear," and is the best obtainable. When you order be sure to settle these points; if you do not you will undoubtedly receive the less expensive kind, as my friend did.

OTHER WOODS USED FOR FLOORING AND TRIM.

Another friend had in his specifications that all the floors in the house he was building were to be "North Carolina pine." But it was not stated that the "rift" or "comb grain" flooring was to be used, consequently when the flooring began to wear he found that he had been given what is known as "flat" flooring. If he had purchased the "rift," or "comb grain" as it is also sometimes called, he would have had material which would not have "checked" and made dangerous splinters, which are likely to cause injury to the occupants of the house in addition to spoiling the appearance of the flooring. Like the "quartered" oak we just mentioned such flooring is sawed in a manner so that this will not happen. It is by far the wisest plan to purchase such flooring, for the additional cost will soon



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be made up in the increased wearing qualities. Remember also that you must specify what grade material, whether trim or flooring, because like all oak woods, no matter what varieties, they come in different grades, according to quality.

WHAT WOODS TO USE FOR DIFFERENT ROOMS.

Oak may be used to advantage in the hall, for trim, flooring, and also the stairs. It is a good wood for the dining-room and the library, as its color usually harmonizes with the decorations generally found in these rooms. The parlor or reception-room in many houses is trimmed with a wood which has been white enameled. The floor in the kitchen and nursery and butler's pantry may well be laid with maple flooring. This wood will stand hard usage and is not expensive. Use "comb grained" Yellow or North Carolina pine for rooms upstairs where you wish to have a good, sound, inexpensive floor which can be varnished. These woods can also be used in the bathroom if you do not have a tiled floor, or you can use maple instead of them. I do not mention the fancy hardwoods such as are sometimes used in very expensive houses, for these are seldom found in the average home. Floor varnishes have been now brought to such a state of perfection that a painted floor is a rare sight indeed. Trim is also not painted as a rule. White pine is becoming so expensive for the "clear" grades that cypress, chestnut, etc., are being used instead for trim and doors. If you order doors from a distance be sure and specify that they shall be oiled one coat before leaving the factory. This protects them during the journey and if it is not done they will be likely to be injured by dust and dirt.

PARQUET FLOORING; WHEN IT CAN BE USED TO ADVANTAGE.

Parquet flooring can be used to advantage especially in an old house, for it is so thin a material that it can be used in one room and not in the next; a person stepping from one room to the other does not notice the slight variation in the floor surface. You must have a sound, level floor to lay it upon. Many new houses have it in rooms on the first floor. It need not have intricate patterns in its design. Some of the neatest I have seen have been plain in the entire center; a narrow band of a different colored wood making a handsome border, and at the corners this strip widens into an effective corner piece.

THICKNESS OF FLOORING, DOORS, TRIM, ETC., SHOULD ALWAYS BE SPECIFIED WHEN PLACING AN ORDER.

Always specify the thickness of any flooring, trim or stair material when you place your order. Flooring is made also in different widths, according to the price. When you order doors specify the thickness. Many people do not know these points and so often obtain unsatisfactory goods. It is a difficult matter to insert locks in doors which are not of sufficient thickness. When you obtain an estimate on parquet flooring find out what thickness of material will be given you if you place the order. As a rule closet doors are only molded in the panels on the outside. This makes a saving, and it is really unnecessary to have molding on the inside of a closet door.

USE ONLY THOROUGHLY DRY MATERIAL FOR TRIM AND FOR FLOORING.

You should obtain material for flooring, trim and doors which has been thoroughly dried before the wood is worked. If it is not, the flooring will shrink, causing cracks to appear between the joints; and the doors will get out of shape; as will also the trim.

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Send for catalogue; we don't issue a big one but what we say in our little one is straight.

YAMA FARMS
NEWTON COSH
Manager Poultry Department
Yama-no-uchi, Napanoch, N. Y.
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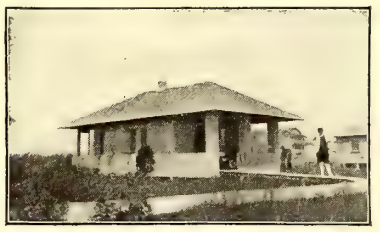

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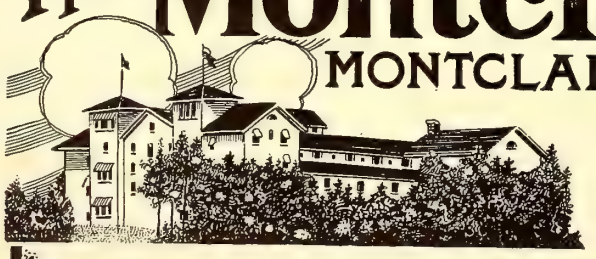

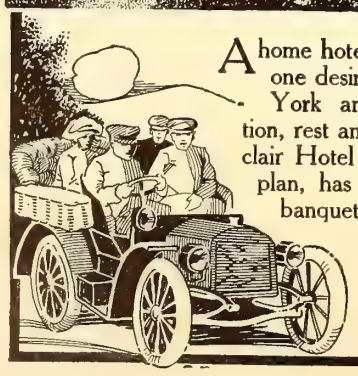

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COLLECTING ANTIQUES

By EDWARD M. THURSTON

AMATEUR collectors often labor under the impression that the day for obtaining treasures has passed—that everything worth having was long ago "collected" and that nothing but trash remains to be discovered. This, however, is a mistaken impression. We sometimes hear of a fortunate individual who has acquired some beautiful and valuable possession for an insignificant fraction of its real value, and while such an opportunity is, of course, now very rare, not so commonly to be met with as in earlier days, real treasures are constantly being found where least expected.

Some one has said that almost every household article, not worn out by use, comes into the market once approximately in every fifty years, either by private or by public disposition. Instances are on record of a man's placing an order at Christie's, the famous London art auction-rooms, for a certain picture or piece of porcelain when it should be brought for sale to that great clearing house of the world's artistic treasures. In America in this day of removals and domestic changes, of the sudden rise and decline of fortunes and of sweeping changes in tastes and hobbies, the tenure of one's possessions is perhaps, comparatively brief, so that the most interesting and valuable art objects such as we call "antiques" are constantly to be had. Some years ago a man was exploring a little shop in a western city where most of the things on sale were the work of Indians. Among the old pottery, bead work, feather headdresses and antiquated bows and arrows, he discovered an old painting upon wood, completely hidden beneath the dust and grime of the place. He succeeded in obtaining this panel for a few dollars. Upon carrying it home a very careful cleaning showed it to be a most beautiful and wonderful picture of an ecclesiastical subject, painted by an early Spanish master. One could easily account for its reaching the Indian missions of the early California days and its chancing to be discarded, as time passed, eventually coming into the possession of some one who could not know its value.

A very worn and dim old Russian icon was once picked up in a small shop, this time in New York. The necessary cleaning proved it to be of silver gilt, with the flesh parts painted in the stiff and Byzantine manner still obtaining in Russia, though this proved to be an early example and of great value. A particularly beautiful old fender was once rescued by the writer from the dust and cobwebs of an old shop in Conti Street, New Orleans, a fender which had so fallen from its high estate that it had been covered with green paint and it required a prodigious scouring and cleaning with acids to restore its original beauty of line and polish. From an auction of old household effects there came a most interesting old tea set of white and gold. Many plates, cups and saucers were missing, but the chief pieces were uninjured and there were enough of these to complete a service for seven or eight, and the writer has since had the pleasure of browsing around antique shops with the extraordinarily successful result of coming across three additional cups and saucers of the same pattern.

A New York collector has been many years collecting unusual bottles. His assortment now consists of several hundred pieces of every imaginable material and he says that many of his most valued treasures have come from the antique shops of Boston, New York and Philadelphia—places

where one would suppose everything of value had long ago been picked up.

A department store is almost the last place in which one would expect to find antique treasures sold at small prices, but several such establishments in various American cities now have "antique departments" where really beautiful things may be found. The buyers for these departments search the old cities of Europe and knowing commercial values they buy these things just as they would buy linens or linoleum at extremely low prices. Their system demands only a moderate margin of profit, so it is really a fact that one may purchase his treasures of furniture, metal and glass, and even paintings in these departments for much less than he might pay for them in old shops of Italy, France, or Spain. Of course, much of the interest of collecting is lost where one does not make his own "finds," for that is the collector's chief pleasure in the pursuit.

IDEAS WHICH ADD BEAUTY AND COMFORT TO THE HOME

By CHARLES K. FARRINGTON

IT is best to have your architect draw your stairs upon your plans. Then you and your builder can see clearly what is planned for. This will prevent what is most annoying—a stairs so planned that it is practically impossible to carry any large piece of furniture up its steps. Every detail should be carefully noted beforehand in getting up a set of plans and specifications, and if they are shown graphically, so much the better.

Watch also that the third story hall, and rooms can be constructed as drawn I have known many instances where it was impossible to construct them as shown in the plans. I especially remember one instance where the builder followed out the plans to the letter, and then it was discovered that the hall would not allow a person of ordinary height to pass through it without stooping.

Do not forget to plan for a piazza rail. The houses planned without it have a very unfinished look. It also secures more privacy for the people sitting upon the piazza. It will astonish the average person to note the vast difference the addition of some simple sort of a rail will make in the appearance of any home.

Bay windows on the first floor if they project out from the foundation should be supported in some way. Brick piers are being used to-day with good results. If the bay window supports a portion of the second story, it is very essential to have a firm foundation for it. I came across a first floor bay window the other day in which was placed a heavy heating radiator. The weight of this and the lack of a proper foundation caused much difficulty and expense in making proper repairs after it had sunk.

Use a "hood" over your kitchen range, if it is not set partly in the chimney. A ventilator under the hood will allow much warm air to pass out and so make the kitchen a great deal more comfortable in the Summer time. Such an arrangement is well worth the extra cost.

Some houses nowadays have only a gas range for the cooking for both Summer and Winter. If yours is so be sure and provide a connection with your furnace for heating the kitchen in the Winter time. A gas range throws out so little heat into the room that it is necessary to have some additional warmth on cold Winter days. Also at night when the range is not used you

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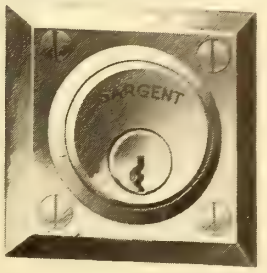

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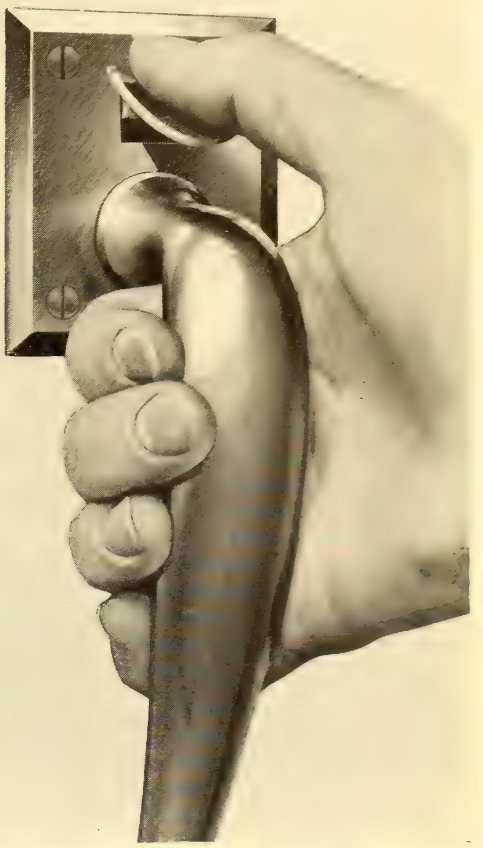

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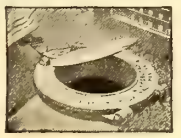

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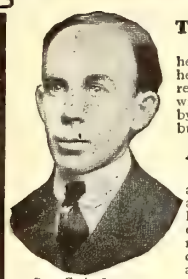

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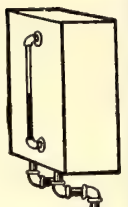

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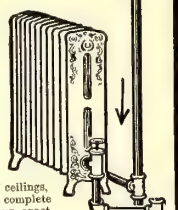

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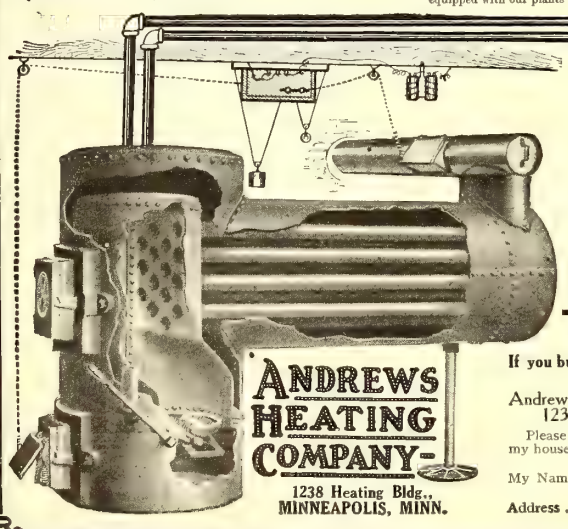

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must heat the kitchen, for if you do not the water in the boiler and pipes will freeze. A better plan in the writer's opinion is to have a coal range and gas range, or a combination gas and coal range. The last mentioned range of course economizes space and should therefore prove popular.

If you have stained glass planned for, be sure and have specified the cost per square foot. It comes at all prices, but you should know what quality you are to have. Some very neat designs can be had at a low price.

Bathtubs can now be purchased that have the waste and the hot and cold water faucets set in the side of them (of course the side nearest the wall) and such an arrangement is very satisfactory. If you desire to change the temperature of the water after you are in the tub you are saved the necessity of reaching forward to the end of it, which is often difficult to do. This device is one of the many small details which are being worked out in planning for comfort in the bathroom these days, and which add so much to the pleasure of the owner.

The writer often wonders how many people plan their home with reference to the prevailing breeze in the Summer time. I saw a house the other day in which this matter had received careful attention. Of course the location, how the house faces, etc., bear upon this matter, but it is often possible to plan for a number of the rooms, especially the bedrooms which are most used, to face the quarter from which most of the Summer breezes come. Try also to have the living-room and the dining-room to face such a direction.

Do not place your bathroom over a vestibule or a piazza, as I sometimes find it. It will be difficult to heat such a room, and there will be great danger of the water in the pipes freezing in the Winter time.

Always plan to have your heating radiators set in the coldest part of each room. If so placed the heat will be more agreeable to the occupants of the house. Careful planning beforehand will enable you to do this, and the necessary time to do so will be well spent.

Hot air registers can now be obtained to set in the wall instead of the floor. Such a location seems far better in most instances, as the registers do not then interfere with rugs laid on the floor, and also do not fill up so with dust when sweeping is being done.

Radiators painted black are now much used, and do not discolor and tarnish as do the ones painted with "gold" and "silver" paint. They are attractive, and the color harmonizes with most of the interior decorations now used. They are also said to radiate more heat if painted black. They are also much less conspicuous.

ROADSIDE FRUIT TREES

ATTENTION is called in a recent consular report to the thrifty plan followed in the province of Hanover, Germany, of planting the roadsides with fruit trees, the product of which is sold at auction for the benefit of the local government, the revenue thus obtained going a long way toward the upkeep of the roads. Hanover has some 7,000 miles of country highways thus bordered. This year some of the roads yielded a revenue, from this source, at the rate of $595 a mile. The fruit is protected by law, and during the season of ripening the roads are patroled by sharp-eyed watchmen, on bicycles, so that little if any of the fruit is diverted from its proper destination.

HINTS ON USING COPPER ON OUTSIDE BUILDING WORK

By A. C. VARIAN

COPPER is being very largely used these days instead of tin and galvanized iron for outside building work. Cornices, gutters, valleys, leaders, etc., are made of it, and it should prove very satisfactory for such purposes, as it resists to a remarkable degree the harmful attacks of time and weather. But experience has shown that it cannot always be used in the same manner as tin and galvanized iron, on account of its being so much more susceptible of expansion and contraction than they are. The usual method in using it has been to place it in position in exactly the same way as if tin or galvanized iron were being employed. But certain defects soon develop if such a course is followed. This article will not enter into technicalities, as that would be beyond its scope, but it will state in simple language some ideas which if used will enable the work to be accomplished in so efficient a manner that it will last for a long time. For the convenience of the reader the writer has divided the article into sections, each with an appropriate title.

COPPER IS A FAR SOFTER MATERIAL THAN EITHER TIN OR GALVANIZED IRON.

Copper is a far softer material than tin or galvanized iron. This means that it must be carefully protected while it is being put up, and also after the work is finished. A blow that would not injure tin or galvanized iron, will often seriously damage copper. If outside copper gutters are used, it is best to have the outer edge made with an iron rod. This will afford some protection in case the gutter is struck by a ladder, or otherwise subjected to an unusual strain. It will also stiffen the gutter and render it more durable. The expense is not large to add the rod when the gutter is being constructed.

DO NOT USE COPPER WHICH IS TOO THIN.

As copper is so much more expensive than either tin or galvanized iron, it is often made in a very thin form, the idea being that as it will not rust, it will last a long time, even though it has not much thickness. But this theory has frequently been carried to the extreme in practice, and some valleys, gutters, etc., have been constructed of copper which will not last. Specify the thickness (or weight) of any copper that you may wish used on your buildings, and do not for a small saving use too thin a material. It may prove costly in the end.

HOW TO AVOID THE DELETERIOUS EFFECTS OF EXPANSION AND CONTRACTION.

As I mentioned at the beginning of this article, copper is very susceptible of expansion and contraction. All outside work is necessarily subjected to extremes of heat and cold. Picture for yourself a metal roof in the bright sunlight, on a hot Summer's day when the mercury stands at ninety or ninety-five degrees in the shade. Think how much heat it will absorb, especially if it is made of copper. Then also consider how much expansion there will be during the day, but remember in addition, that when the roof cools during the night there must be much contraction. All copper roofs are subjected to much strain from such causes. Let us now consider how a copper roof may be laid so as to make it as durable as possible.

COPPER ROOFING.

I have already said that copper cannot be used to advantage for some purposes in the same way that tin or galvanized iron could be. This especially applies to copper roofs. When they are constructed in the

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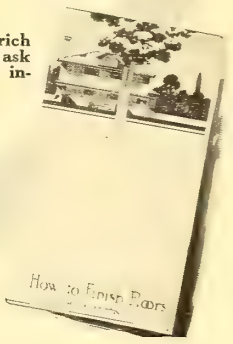

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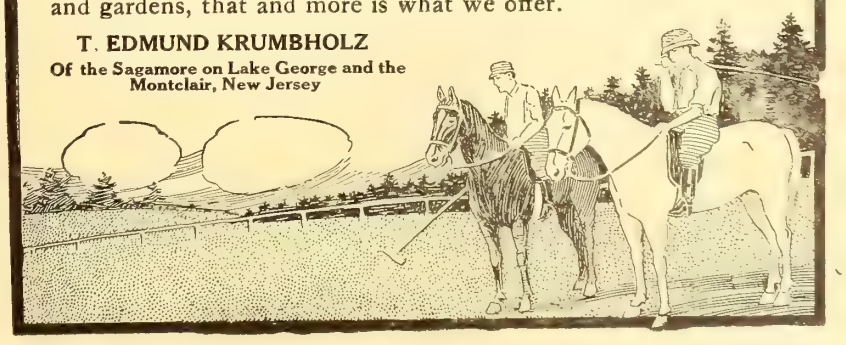

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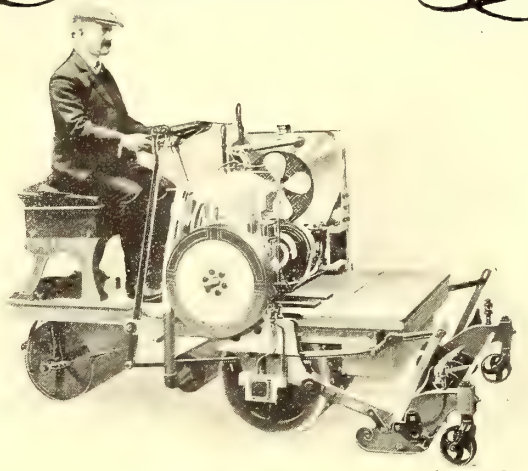

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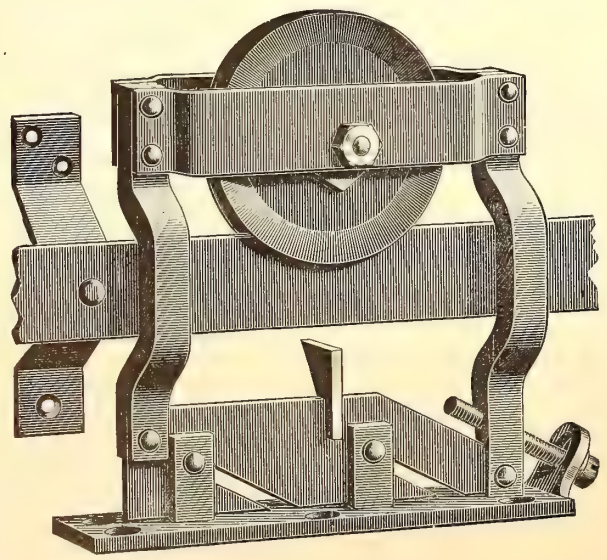

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same manner as a tin or galvanized iron roof, they "buckle." This is caused on account of no provision having been made for expansion and contraction. To construct a durable copper roof, small strips should be soldered to the sheets, and the strips alone nailed to the roof. The sheets are bent on the edges so as to fit into the sheets next to them. Of course, the strips allow considerable expansion and contraction to take place without injury to the roof. This method has been tested over and over again and has not failed, while copper roofs tightly fastened down, with no such provision for changes in the temperature of the metal, buckled outwardly in hot weather. Then when contraction took place, the metal was subjected to a great strain, and in time a crack formed, and the water could leak through. It is a very expensive matter to repair such roofs.

COPPER VALLEYS.

Instead of soldering sheets together to form valleys, the sheets should simply lap over one another at the joints. This method will prevent the harmful effects of expansion and contraction. A perfectly tight valley results from placing the material in this manner. It is also a very expensive matter to renew valleys, and it is best to construct them properly at the start.

COPPER LEADERS.

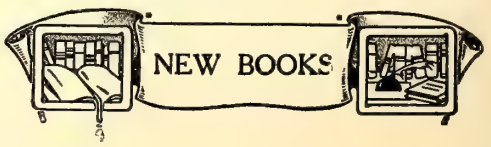
On account of their construction copper leaders are not injured by expansion and contraction. It is obvious that if they expand outwardly or contract inwardly, the only difference is that they are of a slightly different diameter.

COPPER GUTTERS.

Outside copper gutters are not affected by expansion or contraction. This is of course due to the way they are built. "Inside" or "trough" gutters if made of copper, especially if they are long, are affected by changes of temperature, and tend to "buckle." It would seem wise not to use copper for such gutters, but to use the best quality of tin. On the writer's house, gutters so constructed of tin have been in use for over twenty years and are in good shape to-day. Of course they have been kept carefully painted.

CONCLUSION.

In conclusion the writer trusts that what he has written may enable those who use copper to secure the best results. The great increase in the use of the material for the purposes mentioned in this article, and the apparent lack of knowledge on the part of many of its users as to the best methods of employing it, led him to think such information was needed.



NINETEENTH CENTURY ENGLISH CERAMIC ART. By J. F. Blacker. Boston: Little, Brown & Company. Cloth; 8vo. Price, $3.50 net.

The collector of old English pottery and china and all others interested in ceramic arts have long needed a volume that is at once a practical guide combined with a history in pictures of the work of the old master potters. Mr. Blacker, who is one of the best authorities on the subject, here presents concisely the story of the great industry represented by such old-fashioned potters as the Adams, Copelands, Mintons, Wedgewoods, Hadley and Linthorpe, as well as those of more recent date. The numerous illustrations, all carefully selected, present nearly every type and form of pattern, from the blue printed English

and American scenery to the most elaborate painting, gilding and modeling, the masterpieces of the later potters. No collector can afford to be without Mr. Blacker's new book, which is the first in the Nineteenth Century Historical Art Series issued by the publishers.

VENICE AND VENETIA. By Edward Hutton. New York: The Macmillan Company. 1911: Cloth; 16mo.; Illustrated; 324 pp. Price, $2.00 net.

Mr. Hutton is one of the best travel writers of the day, that is to say one of the best writers about places, people and things of interest to one who longs to travel either for the first time or to retrace his steps over foreign paths. In his present volume the author treats of an old subject in his own delightful manner, making the book profitable to read as well as entertaining. After all every man's point of view about the foreign cities he visits is different and it is thoroughly interesting to read what every good writer has to say about the towns and countries he is visiting. To this Mr. Hutton's sympathetic story of Venice is no exception, and the illustrations in the book lend much to its attractiveness.

FLORENCE AND HER TREASURES. By Herbert Vaughn. New York: The Macmillan Company. 1911: Flexible cloth; 16mo.; 379 pp. Price, $1.75 net.

Of handbooks to Florence there are no end, but few of them since Ruskin set the pace with his "Stones of Florence" have been written with more well-directed enthusiasm than the present volume, which everyone who has visited Florence or intends to visit Florence should possess. The arrangement and typography of Mr. Vaughn's handbook are excellent and the half-tone illustrations superior to those that usually accompany volumes of this character. One wishes the index might have been more extensive, but it is probable that a longer one would have added too much to the bulk of a book now of convenient size for carrying in the pocket.

THE CIVILIZATION OF CHINA. By H. A. Giles. New York: Henry Holt and Company. Cloth; 16mo.; 256 pp. Price, 50 cents net.

THE DAWN OF HISTORY. By J. L. Myres. New York: Henry Holt and Company. Cloth; 16mo.; 256 pp. Price, 50 cents net.

MEDIEVAL EUROPE. By H. W. C. Davis. New York: Henry Holt and Company. Cloth; 16 mo.; 256 pp. Price, 75 cents net.

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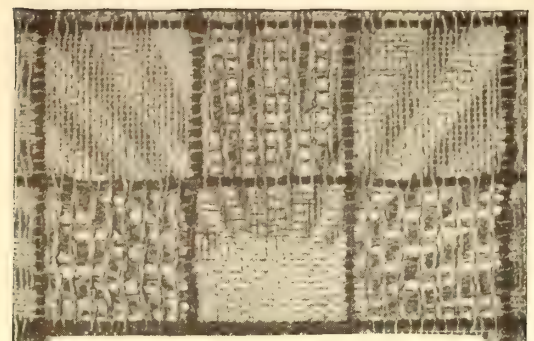

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"Medieval Europe," by H. W. C. Davis, is a volume devoted to a fascinating subject. Herein the author traces the anarchy that accompanied the fall of the Roman Empire, the ephemeral life of the barbarian kingdoms, the rise of the Empire and the new monarchies between A.D. 800 and 1000, and the later "Expansion of Europe." The characteristics of feudalism and the medieval State, the vicissitudes of the Papal Church, the Crusades, and the growth of the free towns are discussed with great ability and fairness. Mr. Davis succeeds in showing the greatness of the error which misrepresented the centuries separating the ancient and modern worlds as "a long night of ignorance and force."

One takes pleasure in endorsing all these volumes of the series and can look forward with anticipation to those that are to come.

THE BYZANTINE EMPIRE. By Edward A. Foord. New York: The Macmillan Company. Cloth; 16mo.; Illustrated; 432 pp. Price, $2.00 net.

This volume is a thoroughly successful attempt to supply the need of a short, popular history of the Later Roman Empire. There has been no work of this sort on this subject up to this time, available in the English language, the nearest approach being Professor Oman's sketch in Putnam's "Story of the Nations" series and the monumental work of Gibbon, Bury, and Finlay, "The Byzantine Empire," by the last author being now obtainable in an expensive and well-printed volume in Dent's "Everyman's Library." Mr. Foord's book concerns itself mainly with the Byzantine Empire's work as preserver of civilization and rearguard of Europe, concerning itself but little with ecclesiastical controversy, this being, in the author's opinion, entirely secondary in the matter in hand. On this point the reviewer differs with Mr. Foord, nevertheless Mr. Foord's volume is a valuable handbook of the subject, adequately illustrated with maps and half-tones and tables, and an index of names. Although the student will find the book of service for its clarity and brevity, the general reader, too, will be glad to pick it up for the pleasure to be had in reading this fascinating record of one of the most interesting epochs of history.

THE BOOK OF THE COTTAGE GARDEN, by Charles Thonger. New York: John Lane Company. Cloth crown, 8vo. Illustrated, 91 pages. Price, $1.00 net.

Nowadays, a cottage in the country may mean anything, from a six-roomed bungalow with a diminutive garden to a commodious residence surrounded by extensive grounds. But whatever its size, the garden of the country cottage offers unique opportunities for the growing of flowers in good and natural ways. A cottage garden filled with hardy flowers is infinitely more satisfying than a group of gorgeous exotics stiffly staged indoors. Therefore, the garden lover will find Mr. Thonger's book a source of inspiration. Although originally written for English readers, its various chapters and fine illustrations contain a great deal of matter every American garden-beginner should know.

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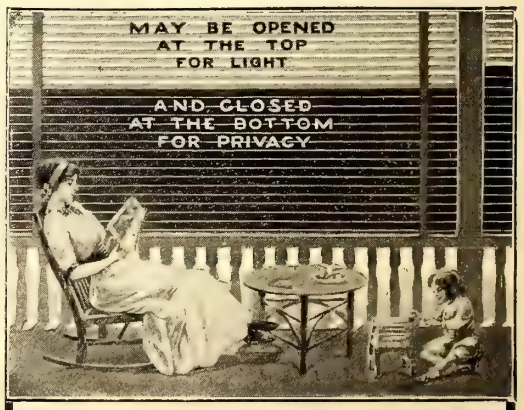

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THE EDITOR'S NOTEBOOK

ROSE GROWING FOR AMERICAN GARDENS AND OTHER ATTRACTIVE FEATURES FOR THE APRIL NUMBER

THE opening article for the April number of AMERICAN HOMES AND GARDENS will be from the pen of Mr. F. F. Rockwell, one of the leading authorities in America on the subject of gardening and horticulture. Mr. Rockwell presents a thoroughly practical and instructive survey of Rose growing for everyone's garden. Whether one has had experience in growing Roses in the home garden or looks forward to taking up Rose culture for the first time, this article will prove a valuable aid to him, its material being clearly set forth. The article is exquisitely illustrated from photographs and by diagrams. No Rose lover can afford to miss this number. AMERICAN HOMES AND GARDENS for April will contain two delightfully written articles on houses, one dating from Colonial times, filled with its original Colonial furnishings, and the other a modern house patterned after a famous Virginia manor and fitted with rare furnishings collected by its owner. One of America's foremost authorities on the house will contribute an article of intense interest to every dweller in the country, and other special features connected with architecture, interior decoration, the garden and the housekeeping, all finely illustrated, will make the April number of AMERICAN HOMES AND GARDENS a treasure-trove of useful and delightful information within its field.

THE ARCHITECTURAL LEAGUE EXHIBITION

THE Twenty-seventh Annual Exhibition of the Architectural League of New York presented to the consideration of its visitors the fact that year after year the League exhibitions show a growing tendency to display less of what is broadly termed architectural matter, and to give greater attention to architecture's accessory arts. There is also a marked tendency to include in these exhibitions works in sculpture, which one feels would be more properly included in the National Academy exhibitions, for instance. Of course, every article of aesthetic or of utilitarian interest produced has a direct or indirect bearing upon architectural problems, yet one cannot but feel that the League exhibitions would be more valuable in the long run if they clung more closely to the problem of building design and of landscape architecture.

In the present exhibition there seemed almost a paucity of small house designs, while the section of decorative arts was overflowing with material that might more properly be shown elsewhere, several of these exhibits being really works for the painting exhibitions rather than for architectural ones, despite the ultimate places planned for their position by their artists. In the matter of stained glass designs, it must be confessed that the work shown in this year's exhibition hardly reached the plane of interest which it should have attained, considering the very excellent and, indeed, surpassing work done by American artists in glass. Much of the designs for glass shown at the league exhibition followed traditions strictly, although occasionally there was shown a design that departed from the time-worn medievalism, as, for instance, one noted in the designs by Frederick Wilson, "The Angel and Child" (865), "The Argonauts" (872). In the sculpture display, one remarked with surprise the absence of works by many of our foremost decorative sculptors, Victor D. Brenner among them. Janet Scudder's "Fighting Boys" fountain was, perhaps, the finest bit of completed work in sculpture shown. Also noteworthy was the model "Children Playing" fountain by Anna V. Hyatt, and the reliefs by John Flanagan for the City Hall, Chicago. It should be remembered that the Architectural League exhibitions in various cities are not mere student affairs, and while the initiate are interested in the processes of working out a problem, it is, nevertheless, probably a fact that too much work of a mere sketchy nature is admitted in the department of decorative design. Some of the sketches for the mural decorations, while promising much, might suggest attempts at accomplishments that the artists themselves will never achieve, and one feels that the public should see more completed work—that is, actually complete, for instance, the paintings by Charles Hoffbauer, "Triumph of the Condottiere, Florence, 1450" (414), and William A. Mackay's "Flying Dutchman" (518), and his "Legend of the Sargasso Sea" (520). Although the present League exhibition was attractive and interesting, it is hoped that future ones will be brought to a higher standard. Surely we have in America ample material and enthusiasm for a still better showing, and our architects should bend their efforts toward it.

U. S. AGRICULTURAL EXPERIMENT STATIONS

THE work accomplished by the various State experiment stations of the United States Department of Agriculture stand ready to render valuable service to everyone throughout the land, but it is not generally understood by the public at large that these experiment stations interest themselves in horticultural matters quite as much as in the broader field of agriculture in relation to farm lands and soil development upon an extended scale. The amateur gardener is quite as welcome to help from these sources as is the farmer. The directors of the United States Agricultural Experiment Stations and their associates are always glad to furnish any information possible on the subject of plant culture of any description, as influenced by the conditions of climate, soil, etc., within their respective States. The editor of AMERICAN HOMES AND GARDENS calls attention to this fact in the belief that there are many of its readers who would be glad to avail themselves of the opportunity of consulting the members of the staff of their State experiment station if they knew that information of great value to them could be obtained upon application. For instance, the various experiment stations are best qualified to give information as to the proper varieties of plants for gardens (both flowers and vegetables) within their states, to answer queries pertaining to local soil conditions, and to suggest remedies for plants affected by the various pests that attack vegetable growth. The value of the service rendered by the State experiment stations is practically inestimable, and the great number of American home-builders is quickly coming to discover this.

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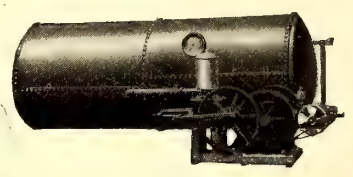

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Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

Copyright 1912 by Munn & Co., Inc. Registered in United States Patent Office. Entered as second-class matter June 15, 1905, at the Post Office at New York, N. Y., under the Act of Congress of March 3, 1879. The Editor will be pleased to consider all contributions, but "American Homes and Gardens" will not hold itself responsible for manuscripts and photographs submitted

Photograph by Jessie Tarbox Beals

This is the sort of a garden everyone remembers with delight, the sort of a garden that truly adorns the house, Everyman's garden, in truth

AMERICAN HOMES AND GARDENS

Volume IX — March, 1912 — Number 3

Everyman's Garden

By Gardner Teall

Photographs by Jessie Tarbox Beals and Nathan R. Graves

THERE is a lovely garden nestling in a quiet valley of the Connecticut countryside that I shall call Everyman's garden, because here one finds, season after season, a world of delight in the delectable array of blooming things dear to the heart of everyone who holds close to him the memory of Hollyhocks, Larkspurs, Columbines, Marigolds, Cockscombs, Poppies, Asters, Foxgloves, Canterbury Bells, Love-in-a-Mist, Mignonette, Sweet William, Petunias, the Zinnia, and all the other beautiful flowers we have called old-fashioned because we love them best. Here one finds no orderly array of stiffly designed flower beds, looking for all the world like a patch quilt for keeping Nature covered up. Instead, great banks of Phlox, clumps of Peonies, trellises of Sweep Peas, and banks of Nasturtium hold almost riotous sway over the domain that stretches from doorstep to the gate, which seems always swinging open to welcome you to the wonderland it gives access to. When you see the gorgeous blaze of wonderful color before you, as though all the gems at Aladdin's command had been strewn by careless but generous hand just there, you will rub your eyes to make sure you are not dreaming; that this little paradise is real, after all. Whatever notions you may have entertained about stiff borders, symmetrical edges and formal garden lay-outs will vanish utterly under the spell this garden casts around one,

There is probably no man the whole world over who would not long for a garden like this and find it a thing of beauty and a joy forever

The Lupin was mentioned by a Colonial chronicler as being found in a Boston garden in the year 1760

and you will find that it can teach you more in an hour than many another has taught you in a season.

A few years ago—fifty if you will—we were all imagining that we had no history; to-day we realize we have made a great deal. We cannot whirl through the countryside and catch a glimpse of some old house, landmark of our Colonial era, that our hearts do not bound up within us with the pride we hold in all we have done since then. It is not because this old pewter mug, or that old sampler, or these quaint candlesticks evoke our admiration merely in themselves for their intrinsic worth that we bargain for them, collect them, and carry them off with us, to adorn our houses, with almost as much pride as the conquerors of old brought back their spoils to adorn the victory; it is because history and these things have gone hand in hand, a thing we love to be reminded of, the quality which lends to the "antique" its chief charm. That, too, is why we must have reproductions of the old things, if the old things themselves are to be denied to us. So it is with gardens. The Englishman may walk among his box-bordered geometricies, his yew-covered paths; the Italian among his balustraded terraces, sentineled by Cypresses; the Hollander among his Tulip-beds, the Spaniard within his arbors of Jasmine, the Frenchman around his rows of Lilies, and the German about his shrubbery, his Moss-Roses and Forget-Me-Nots; but to the heart of every American that garden of flowers is the loveliest which carries with its perfume the reminiscent suggestion of those gardens of our cradle days, when Salem roasted witches but overlooked the enchantments of her dooryard, red with Four-o'Clocks, white with Candytufts, blue with Bachelor's Buttons, and when the good folk of Boston village, each over his neighbor's fence, discussed the newest Larkspur seed, the fantastic forms of the Gourd. We love to be reminded, too, of the garden at Mt. Vernon, of the bouquets that used to come fresh with the morning dew upon them to Mistress Dolly Madison, of the gardens where the brave boys in blue and the brave boys in gray played in their happy youth, taking little heed of the prophecy of the relentless Dicentra—Bleeding Heart, indeed!

And so, when I come into a garden such as this one, where on a Summer's day the hum of bees throws me into drowsy meditation and the winds waft sweet music of the nodding stems to listening ears, I say it is the best garden of all—your garden, my garden—Everyman's garden.

> "If they to whom God gives fair gardens knew
> The happy solace which sweet flowers bestow;
> Where pain depresses, and where friends are few,
> To cheer the heart in weariness and woe."

These words of a poet, whose name has long since been forgotten, come to one as he strolls through the banks of

The spicy-scented Valerian is the stately flower which our great-grandmothers used to call Allheal

Delphinium, the lovely Larkspur of old-fashioned gardens, and the white Madonna Lily, *L. candidum*

flowering verdure, but only because we feel sorry for that poet of long ago. He may have known lovely gardens, but had he known this one never would the burthen of his song carried with it suggestion of any plaint, but he would have felt that spirit of all gardens whispering as the *genius loci* to him, as in the exquisite words of Francis Thompson's "An Anthem of Earth":

> "Here I untrammel.
> Here I pluck loose the body's cerementing,
> And break the tomb of life; here I shake off
> The bur o' the world, man's congregation shun,
> And to the antique order of the dead
> I take the tongueless vows; my call is set
> Here in thy bosom; my little trouble is ended
> In a little peace."

How inseparable, indeed, are gardens and poetry, poetry and gardens, though many there be (they, perhaps, who are merely born with the botanist's eye, the agriculturist's crop proclivities, or the spadesman's muscle) who pretend to find in the garden only the suggestion of a deal of troweling, a scattering of seeds, a turn at weeding, a thorn or two, and the trouble of beginning it all over again, meeting the occupation or the necessity withal, as the case may be, season after season and year after year, but as a matter of business, as part of the business of life, a duty performed well but blindly, unilluminated by the inner light that sheds its radiance upon the joys of gardening. Indeed, I know a man who has a yard full of plants spacefilling his Summertimes. If you should ask him why he plants them, he could not tell you, though I suspect he is coming under the spell of habit and that a few more years will find him understanding that he has a garden, not merely a Rose here, a Lilac there and a row of Geraniums, causing him a deal of grumbling and trouble, because he looks upon them solely as agents in outvieing his neighbor's floral display; I say he cannot forever escape the heart-song his sorry garden is trying to sing to him—sorry garden, for a garden cannot

The exquisite Morning Glory is a solace in Everyman's garden. There is not a lovelier blossoming vine to be found anywhere

make itself—he cannot escape it if he has a soul, and I think he has. When I go down his street and look over his fence at the growing things beyond, for all the world a garden of prim precision and joylessness, I say to myself, "That is Noman's garden," and I pass on with a sigh. I tried to talk to him once about gardens—about mine. It was in the early Spring, and I hoped to learn how he had managed to make his Larkspurs taller than mine, though his were not so blue. Alas! It was by recipe! Enough chemicals to have established a pharmacy, and a grim determination that his garden should look down upon mine. That was all I got out of him; he had never heard of Omar Khayyam, of Francis Thompson, and would have lost faith in Francis Bacon had he known the great philosopher had "wasted"

The tall-growing Foxglove, *Digitalis purpurea*, is one of the favorite old-fashioned garden flowers

The picturesque Black Cohosh, *Cimicifuga racemosa*, comes to us from the edges of our ponds

Love-in-a-Mist

Gaillardia

Blue Larkspur

his time in discoursing "Of Gardens." For my own part, I can dismiss the matter of Noman's garden from my mind as though he were a purveyor of dried herbs, being, nevertheless, charitable enough to wish him well.

In place of his company, I love to sit out under the trees of Everyman's garden. Now and then a whiffet of clover-fragrance, of perfume from the clover fields beyond, cuts keenly to our retreat, and the master of the garden shakes his head laughingly and gives warning that his flower-children will be jealous. So they are; the next fluttering of leaves is turned by zephyrs scented with the subtle incense of the Columbine, the Honeysuckle or the strange, sweet breath of the Dahlia. Then I tell the master of this garden all the hopes and fears I hold for my own. For two seasons now, I tell him, I have been striving to rear my treasured plants and bring them to maturity, that they may frame the garden of my dreams. He leads me to an old back porch screened with Honeysuckle, Clematis, and stringed Morning-Glories. "Here," he tells me, "I keep the diary of my garden." I look over his shoulder and find that for many years he has jotted down with loving care all sorts of things everyone should know about his garden. Some of the things I find written in these bulky notebooks are much the same as the things the master of Noman's garden begrudgingly dispensed when I pressed him for information. How differently it is with the master of Everyman's garden. Eagerly I begin to compare notes, first turning to his trim little entries under

SITES AND SOILS FOR THE GARDEN

"They must be weed-free." We both agree as to that. Weeds cannot be cut under and allowed to hide their heads, ostrich-like. We must not let the foolish things take silly advantage of us that way. We must root them out in earnest, and burn them. Moreover, if the garden plot we have determined upon is neighbor to a weedy field, we shall be called upon to exercise some vigilance over-fence. It is a poor neighbor who will not lend hand to organized effort in a community to root out obnoxious weeds. We all know that nothing is so injurious to a flower garden as too much water, or too little. A garden spot upon a slope with a southern exposure is ideal for site, permitting, as it does, access to sunshine—all flowers need that—and proper drainage often denied to the flat garden. We are reminded, too, of the havoc north and west winds wreak upon Roses and other tender plants and we must plan a hedge, shrubbery or some other means of shielding our gardens in the directions of these winds. The owner of Everyman's garden tells me he chose its site away from the road-front, for he not only wished his flowers to be free from the dust clouds stirred up by the vehicles constantly passing, but also because, wishing to have the joy of spending several hours each day tending his plants, he sought a spot that would give him greater privacy than the road-front.

No American garden really seems complete without its clump of graceful-leaved Columbine

We both discovered, as every one who has a garden comes to discover, that dirt is not soil—at least, not soil in the sense of the proper source of nourishment for plants. With earth made up of sand and clay and decayed vegetable, called humus, plant life must be supplied from these in proportion to the requirements of species. We usually refer to

White Poppy

Dianthus

The Bellflower

a very sandy or a very clayey soil as a poor soil, and one abundantly supplied with humus as good soil. A poor sandy soil contains from 80 to 100 per cent. of sand and as sand supplies little nutriment to plants unmixed with vegetable or animal matter, it stands to reason one would hardly expect to make a lovely garden out of a mere sandbank, or out of a stretch of closely-packed clay, for though clay may contain plant food, the roots of plants cannot get to it unless the clayey soil is mixed with other soil. To a mixed sandy and clayey soil we give the name loam. Such loam contains from 40 to 60 per cent. of sand; if from 60 to 80 per cent. of sand, we call it sandy loam, and if less than 40 per cent. of sand we call it clayey loam. This loam is the basis of all good garden soil. Drainage lightens the soil and permits aeration, which is so necessary to it; and, freed from stagnant moisture, the earth becomes warmer and drier and more fertile, as the bacteria which nitrify it and convert manure into plant food can live in soil that is properly drained and tilled in infinitely greater quantities than in soil that stands neglected. We must remember, too, that no amount of commercial fertilizer will help our gardens if the body soil is not put into a proper condition to receive and take care of it; one might as well try to strain tea through a basin of jade. The owner of Everyman's garden has written in his notebook this quotation from Soraner's "Physiology of Plants": "The ideal condition of a soil is one which resembles a sponge and in which it will retain the greatest amount of nutritive substances and water without losing its capacity for absorbing air." There you have it in a nutshell. The problem does not seem so terrifying after all. We have only to dig a bit in the garden area. If we find the soil there too "heavy," we shall know what to do; too light, we shall likewise know how to alter its condition; but in either event we shall not forget that it will require frequent fertilizing to keep it "up to pitch."

The Hollyhock stands sentinel in Everyman's garden—one of its most loyal members

DRAINAGE

I know of no better method of testing the soil of the garden plot than that of digging several holes to a depth of three feet and covering them to prevent rain from entering. Then, after several wet days, the covering may be removed, and if water is found to have risen within the holes it may safely be assumed that the ground is not properly drained. For large areas of garden soil runs of tile drainage pipe will be needed if the water collects beneath the top soil, but for small garden areas the soil may be removed to a depth of some thirty inches to receive an underbed of five inches of gravel. Of course, in such an operation the top soil must be restored to its original position.

FERTILIZING

It is not always easy for the garden beginner to know just how much fertilizer the soil requires. Perhaps he will discover that "over-fed" Nasturtiums wither and die, but one cannot seem to "over feed" the jolly little inhabitants of the flower bed. Probably the average flower garden will find stable or barnyard manure (that which has been heaped for at least six months, until it is well rotted) will prove sufficient. Stable manure, two barrowfuls, say, to a square rod being ample, or somewhat less if barnyard manure (better for dry soils) is used.

PLANTING TABLE FOR ANNUALS, BIENNIALS AND PERENNIALS, FOR EVERYMAN'S GARDEN

FLOWER	SORT	PLANT	BLOOM	Plants Inches Apart	Seeds Inches Deep	COLORS
Aquilegia (Columbine)	P	May	June-July	12	.....	Various
Achillea	P	May	July	10	.....	Various
Adonis	AP	May†	May-June	6	.....	Yellow
Ageratum	A	May	June-October	6	¼	Blue-White
Anemone	P	May	August-October	10	.....	White-Rose
Aster	A	May	July-September	14	¼	Various
Bachelor's Button	A	May	July	8	⅛	Blue-White-Pink
Balsam (Lady's Slipper)	A	May	June-September	14	¼	Various
Bleeding-Heart (Dicentra)	P	May	May-August	26	.....	Crimson
Calendula	A	May	June-October	12	⅛	Orange
California Poppy	A	May	August	10	⅛	Orange
Campanula (Bellflower)	PA	May	June-July	10	¼	Blue-White-Pink
Candytuft	A	May	June-September	8	⅛	White
Castor Bean	A	May	August	36	¾	Green
Chrysanthemum	PA	May	August-October	18	⅛	Various
Clarkia	A	May	June-September	10	¼	White-Purple-Rose
Cockscomb	A	May	June-October	10	¼	Red-Purple-Yellow-White
Coral Bell	P	May	July-August	12	.....	Coral
Coreopsis	A	May	June-August	12	⅛	Yellow-Brown
Cornflower	A	May†	June	10	⅛	Blue-White-Rose
Cosmos	A	May	August-September	24	¼	Red-White-Pink
Dahlia	P	May	July-September	36	.....	Various
Daisy	P	May	May	10	.....	White-Pink-Rose
Evening Primrose	P	May	July-August	10	.....	Yellow
Forget-Me-Not	PB	May	April-July	6	¼	Blue
Four-o'Clock	PA	May	July-August	12	¼	Red-White-Yellow
Foxglove	PB	May	June	12	⅛	White-Pink
Gaillardia	P	May	July-October	12	⅛	Yellow-Red
Globe Amaranth	A	May	July	12	¼	Pink
Godetia	A	May	July-October	12	⅛	White-Red
Gourds	A	May	July-October	14	⅛	Various
Heliopsis	P	May	July	12	¼	Yellow
Helianthus	P	May	August-September	18	.....	Yellow
Hollyhock	B	May	August	16	½ drills	Red-Pink-Purple-White-Yellow
Iceland Poppy	PA	May	June-September	6	⅛	White to Orange
Iris	A	May	May-July	12	.....	White-Blue-Yellow
Larkspur	PA	May	June-July	8	⅛	Blue-White-Pink
Lavatera	A	May	July	8	¼	Rose
Lobelia	A	May	June-September	4	⅛	Blue-Red
Love-Lies-Bleeding	A	May	June-July	10	¼	Scarlet
Love-in-a-Mist	A	May	June-September	8	¼	Blue-White
Lupine	PA	May	June	5	.....	Blue-White-Pink
Mallow	P	May	July-September	10	.....	White-Rose
Marigold	A	May	August-October	6	¼	Lemon to Orange
Mignonette	A	May	July-October	12	⅛	Whitish Green
Monkshood	P	May	July-August	8	.....	White-Blue
Moonflower	A	May	August-September	5	¼	White
Morning Glory	A	May	July-August	12	¼	Various
Nasturtium	A	May	July-October	10	½	Various
Nicotiana	A	May	July-August	8	¼	Red-White
Pansy	PA	May	May-October	12	⅛	Various
Peony	P	May	May-June	48	.....	Red-White-Pink
Petunia	A	May	July-September	8	Scatter	White-Pink-Blue-Wine
Phlox	PA	May	July-October	8	⅛	Various
Pink	PA	May†	August	6	⅛	White to Rose
Poppy	A	May	July-August	5	⅛	Various
Portulaca	A	May	July-October	5	⅛	White-Red-Yellow
Primrose	P	May†	April-May	6	.....	Yellow-Pink
Pyrethrum	P	May	August-October	12	.....	Various
Rudbeckia	P	May	August-September	12	.....	Yellow
Salpiglossis	A	May	June-August	8	⅛	Various
Salvia	PA	May	August-October	6	⅛	Scarlet
Scabiosa	P	May	June-August	8	.....	Blue-Yellow-White
Schizanthus	A	May	July-August	10	¼	Yellow-Lilac
Silene	P	May	June-August	6	.....	White to Rose
Snapdragon	PA	May	July-August	8	¼	Various
Stock	A	May	June-July	6	¼	White to Red
Sunflower	PA	May	August	36	¼	Yellow
Sweet Alyssum	A	May	May-September	5	⅛	White
Sweet Pea	A	May†	June-October	8	3 trench	Various
Sweet William	PB	May	July-August	10	¼	Red-White-Pink
Verbena	P	May	June-August	8	.....	Various
Veronica	P	May	August	6	.....	Purple
Violet	P	May	March	6	.....	Violet
Wallflower	PBA	May	July-August	8	½	Yellow-Brown
Zinnia	A	May	July-October	10	½	Various

A—Annual. B—Biennial. P—Perennial. † Can also be planted in April.

The attractive stucco house of a Western architect, Mr. Frank Wethrell, Des Moines, Iowa, which was designed by and built for himself

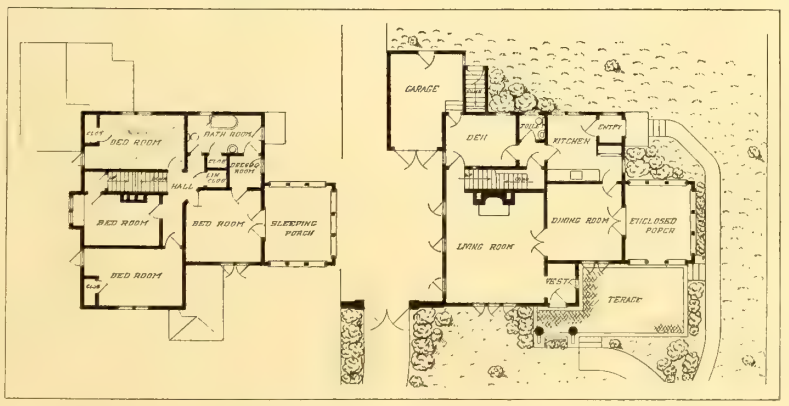
An Architect's Residence

By Robert H. Van Court

IN planning a house for someone other than himself, an architect is often obliged to make concessions dictated by the preconceived ideas of the owner-to-be, and must, from necessity, often depart from his own. When it happens that he can plan and build a house for himself, an architect then has an opportunity of giving expression to his most cherished views as to what a house should be to form the setting of a home.

Mr. Frank Wethrell, of Des Moines, Iowa, has built the small house for his own occupancy here illustrated. It may be assumed that it embodies his ideas of what a suburban house of its size, for the Middle West, should be, and, aside from its attractiveness, is doubly interesting from this point of view. The Wethrell house, while in no sense cramped, occupies grounds that are not large in extent. Nevertheless, one does not stop to think of this, as the house is so delightfully placed amid well-grown trees. Evidently in building this house its owner had in mind its use as an all-the-year residence, and its design carries out a frankly direct simplicity that is one of its chief attractions.

The entrance path of brick, one step up from the flagstone sidewalk, leads to a brick terrace and to a quaint entrance-porch, unusually well designed, in front of which a trellis has been placed, which another season will find vine-covered. Three steps of brick lift to the porch floor, from which one enters the house through a small vestibule opening to the left into a spacious living-room. The room receives the sunlight through six casement windows. The chimney-breast is of brick, with a high mantel shelf. The same simplicity that distinguishes the exterior of the Wethrell house marks the scheme of its interior, though in no sense is the interior the least "bare"



Plan of the house of Mr. Frank Wethrell, Des Moines, Iowa

View of the living-room, the most striking features of which are the great brick fireplace and the beamed ceiling

A view of the dining-room, which is lighted by a shower drop, simple and attractive in design

in appearance. Glazed doors lead from the living-room into the dining-room. This room is also constructed with casement windows. A study of the plans of this house will disclose its many points of interest, and while complete in every detail, its design has been so skillfully worked out and its furnishings so tastefully chosen that there is no overcrowding apparent anywhere.

In carrying out the plans of this design for his own house, the architect has been free from the demand often made upon him by the speculative builder, who, having merely transient ownership in view, is not willing to meet the requirements of the more thorough workmanship and finer sense in devising the planning of a house that, on the other hand, lends encouragement to the architect who is permitted freer rein. Fortunately, the architect of this house has found himself free to work out his conception of a small home, producing, as he has, a suburban house that embodies the units of good taste in design, convenience in plan, and which gives adequate attention to sanitation. The skill with which the architect of this house has felt his way in working out his conception points to the fact that one need never be discouraged by the restrictions of the small suburban plot.

The Wethrell house is an excellent example of a dwelling that is perfectly suited to its site, homelike and thoroughly attractive

"The Rainbow"—stained-glass window designed by Walter Shirlaw for a room in the residence of Mr. William T. Evans, Montclair, N. J.

Stained and Leaded Glass for the House

By Ida J. Burgess

AMONG the architectural accessories that lend refinement to the dwelling house are to be considered windows of stained and of leaded glass. Stained glass, as distinguished from leaded glass, is that material which depends primarily upon color for its effect, whereas leaded glass is dependent upon the lines of lead that form a patterned network to hold the bits of plain glass that compose the whole panel, and rarely contain color at all, although occasionally color is introduced in a slight degree into the decorative scheme.

Originally the term "stained glass" referred to the material treated by a chemical process, whereby a solution of silver was retained upon the surface of the glass as it was placed in a kiln for "baking," coming forth a yellow transparency wherever the silver solution had been applied. This staining of glass was much practiced at a time long after colored glass had reached its highest excellence, but, by one of those occasional misapplications of terms that of "stained glass" came to be applied to all work in colored glass, as used in windows, and has clung tenaciously to it, to the universal exclusion of the truer term, "colored glass."

A well-designed window in leaded glass. It will be noticed that colored glass has been introduced in this window with good effect

A few years ago, especially in the '80's, when "builder's architecture" became responsible for so much of the poor taste then prevalent in house construction, almost a mania for stained glass, or what passed as such, spread over America. It is doubtful if any country, even during the darkest years of the dark ages, found itself so swamped with inartistic hideousness of the sort of the "stained glass" in question (one is impelled to use quotes) as did our homemakers at this time. The windows of poor design were constructed of poor glass atrociously colored—"pink, purple and sauterne," as someone describes the coloring of the windows unfortunately still within our recollection—though occasionally one met with an exception to the prevailing poor taste. A great deal of the trouble lay in the fact that the builders of American houses of two or three decades ago quite forgot the precedent set by architects of Colonial times—the precedent of preserving harmony in all parts composing the architectural whole. The early-day architect of the noble Colonial houses, that dignified the period of their construction, never dreamed of filling their windows with glass better suited to a baronial castle, a Jacobean manor house, to the château, or other old-world

"Juliet"—a portrait window by Ida J. Burgess

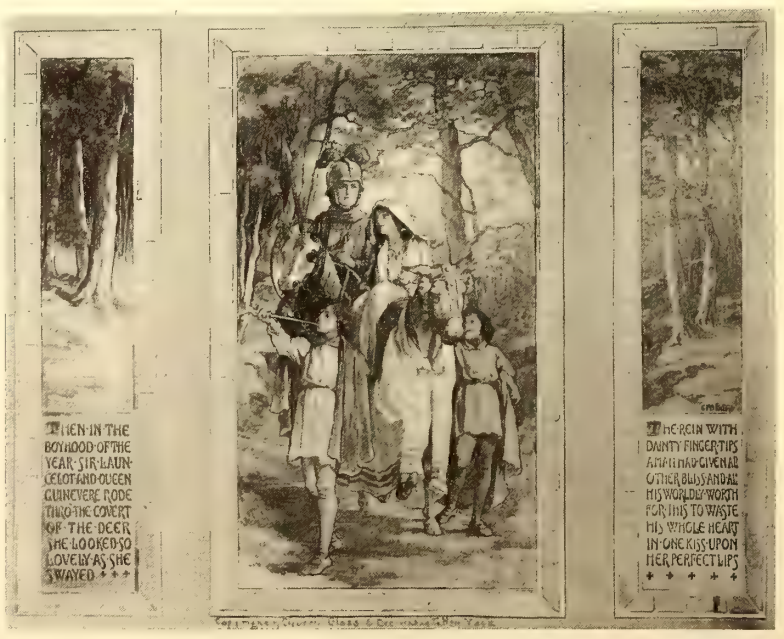
architectural types. Instead, the Colonial architect employed, as a matter of course, leaded glass as best fitting the style of the period and the material in which he worked.

And so it is that in the modern house one looks for consistency in all structural matters, and stained glass is given its place in houses of the prototype that evolved it, just as we place leaded glass in those houses of to-day to which its traditions should assign it. Indeed, nothing could be more incongruous than a dwelling for all the world like a Colonial cottage outside and like a crypt, or a chapel, or a baronial castle inside, and vice-versa.

Nevertheless, it must not be thought in this connection that stained glass employed in the windows of a house makes for over-solemnity, gloominess, or mere ecclesiastical aspect. Our artists of the present era have shown us to the contrary. We have seen what Sir Edward Burns-Jones, William Morris, John La Farge, Louis Tiffany, Walter Shirlaw, to mention but a few names, could do to prove that stained glass may have an important place in the modern dwelling, provided the style of architecture in the house admits of anything other than plain glass or leaded glass. It is true that the unilluminated, varied color and strange mixture of tints, visible on the exterior of windows of stained glass when viewed from the outside, are somewhat disconcerting and occasionally inharmonious in effect with the façade of a building. Nevertheless, as stained glass windows are only properly placed when they serve primarily to ornament and enrich the decorative effect of an interior and to exclude an unpleasant outlook, their very position absolves them from the criticism that their employment as architectural features should have placed upon them any ban by reason of their exterior appearance. As a matter of fact, the "rough-cast" appearance of the exterior of a stained glass window, if unmarred by expanses of skyblue-and-white streaky translucent glass, rather enhances the walls of a stone or brick house than otherwise, when viewed from the outside. Stained glass for the modern house deserves to receive more attention than it has had, even from the present-day home-builder, who is supposed to be keenly interested in everything pertaining to the development of beautiful houses, both within and without. A window showing beautiful masses of color, varying under the different degrees of light, possesses at all times a peculiar charm of its own. No other medium of artistic expression has quite that which is peculiar to stained glass as a material for creating the beautiful, and the wealth of exquisite color, brilliant and gem-like, which it reveals to us as the light passes through it, gives it a claim to our enduring consideration.

There are, of course, certain rooms in the house where windows of stained glass will find their most appropriate setting. In the library—that is to say, in the room which is a *real* library—the stained glass window above the bookshelves may form a most appropriate decorative feature, and while admitting a certain amount of light, will obviate the strong crosslights that would otherwise result from the use of windows throughout of clear glass. In some instances small window spaces above the bookshelves have been filled by portrait heads in stained glass, and in other instances larger spaces have been occupied by landscape windows worked out with subdued or glowing tints, as good taste determined. Hall, staircase and music-room windows of stained glass are appropriate in their proper setting, and in town houses, where the rear of the dwelling has an unpleasing outlook and yet must give place to the dining-room, stained glass windows let in a sufficient amount of light and yet screen the undesirable view. Naturally one does not look for large figure compositions in stained glass windows intended for small rooms, for in this, with all other matters under the dictatorship of good taste, consistency must be studied and maintained.

The idea is prevalent that stained glass of good quality, color and artistic design costs an enormous amount of money. On the contrary, very beautiful windows may be had for a comparatively small expenditure. A fine window of stained glass is as good an investment, so far as buying things for one's self is concerned, as a fine piece of furniture. Like the latter, the stained glass window can be insured against loss, moved from place to place, or stored away for safety in times of prolonged absence.



Stained-glass window, by Clara Burd, depicting Launcelot and Guinevere

Notable among windows designed by American artists for private houses is the "Peony Window" here reproduced, the work of the late John La Farge. A single panel of growing flowers, shown against a background suggesting a luminous sky above and running water below, and the border of intricate pattern of delicate flower petals, presents a variety of color tones characteristic of the best glass designers of

earlier times, whose works La Farge made his life study. But quite the most exquisite part of this panel is the wind-blown mass of Peonies, held back by their curving stems. Conventionalized though they are, to a certain extent, they still possess all the strength and vitality of nature in the curved lines and rich masses that suggest fresh June color and Nature's very own fresh brilliancy. The introduction of the exquisite rose-color that has marked so much of John La Farge's work is to be found here. This artist's successful efforts to obtain glass of suitable richness to meet the requirements of his conceptions resulted in that long series of experiments which led him, perhaps, to the highest achievements of his day in this direction, which, together with the work of his contemporaries, Louis C. Tiffany and others, placed American stained glass on the very highest plane of modern decorative art, recovering to our workmen the quality and richness of the stained glass of the mediæval masters of the craft.

In the Worcester (Massachusetts) Art Museum is another window by La Farge, the "Peacock Window," a famous example of the fusing together the edges of various pieces of glass, held in position by a thin brass wire, somewhat after the manner of Cloissonné enamel work. Submitted to the right degree of heat, the glass is fused, piece to piece, thus making it possible to connect various delicate tints without requiring the assistance of the intervening leaded lines. Nevertheless, the decorative value of the contrast afforded by lead lines is enormous, and one would not, except in rare instances, wish to do entirely without them.

The lovely window by the late Walter Shirlaw, reproduced on the first page of this article, is an example of a window intended for a residence (that of Mrs. William T. Evans), which especially well exhibits this value to the whole of the leaded line. Always occupied as he was with the expression of symbolic representation of ideals, Walter Shirlaw never failed to give life and movement to any subject from his hand. In this window is depicted a lovely goddess seated on the ledge of a marble terrace, two peacocks at the left. Beyond are dark masses of Fir trees and Pines in the landscape, and in the clearing sky above is seen a suggestion of the rainbow that gives the window design its name. The lovely flesh tints, perfect modelling, the folds of the drapery falling in sweeping masses and blown by the gust of Summer wind, unite the composition in a manner characteristic of this noted artist's work. One would never tire of a window of this sort.

The use of enamel color on nearly opaque white glass has enabled the glass painter of the present day to attain excellent results in the matter of actual portraiture. Until very recent years the usual manner of treating portrait heads, as seen in ecclesiastical glass (where it is quite sufficient), was by means of obtaining tints approximating flesh tones by means of lines of brown applied on a flesh-tint glass. For centuries this was deemed all that was necessary in the way of representing the color of flesh in glass painting. However, in order to attain more perfect representation in this medium, American artists in glass working have devoted much persevering effort in solving the problem of a better means of working out portraiture for stained glass, and our artist-craftsmen have the honor of having achieved a distinct success for their pains, although portraiture in stained glass has been very little attempted as yet. When the lifelike quality of the portrait in glass becomes better known, doubtless it will lead many persons to a recognition of its unusual merits as deserving consideration for a place in home decoration. Of course, there are great difficulties for the artist to overcome in the use of enamel colors on glass, but the thorough artist will enjoy solving his problem all the more for the pleasure he will find in surmounting the difficulties that may beset his progress.

Portrait window designed and painted by Ida J. Burgess

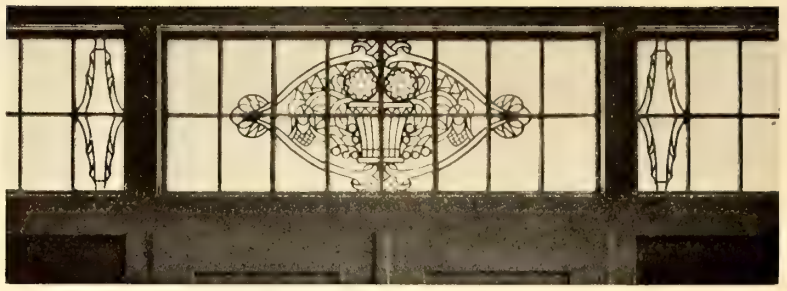
The fondness we have shown as a nation for landscape in painting has found expression in our work in stained glass as well, especially in connection with composition employing the human figure. The three-panel design by Clara Burd, for a library window, a reproduction of which is here given, is such an instance. This "Launcelot" window illustrates a scene from the Arthurian legend, the text of the side panels reading as follows: "Then in the boyhood of the year, Sir Launcelot and Guinevere rode through the covert of the deer. She looked so lovely as she swayed the rein with dainty finger tips. A man had given all other bliss and all his worldly worth for this, to waste his whole heart in one kiss upon her perfect lips."

The "Peony Window"—designed by John La Farge, an exquisite example of American stained glass

Although leaded glass is much more simple in effect than any stained glass possibly could be, still it requires the hand of the artist in its designing, just as truly as does stained glass. Its leaded lines must be just right or its effect will be all wrong, especially as it will rarely, perhaps, have a note of color to help it along.

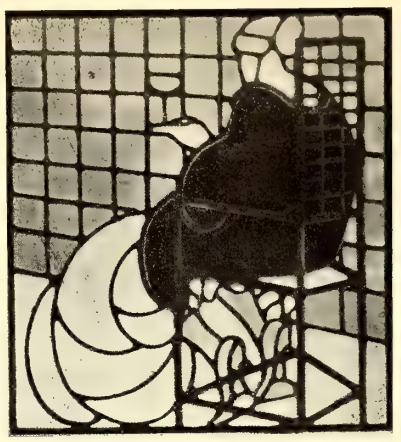
One does not, perhaps, think so much about the matter of patterned windows during the Summer months, when the outlook through the casement frame is pleasing, but with the approach of the Winter months, in those localities where the landscape prac-

tically becomes a snowscape, month in and month out, one welcomes the pattern relief from the monotonous vista, which relief the well-designed window in leaded glass affords. Although American artists lead the world in stained glass, it must be conceded that Germany, up to the present, has produced the most interesting leaded glass so far as contemporary work is concerned. We have much that we can learn from our Teutonic neighbors in the spacing of design, vigor and beauty of line, correct application of pattern, and in the remarkable command their artists in glass display in the use of the leaded line. The two illustrations upon this page are reproductions of examples of leaded glass windows by German artists.



A well-designed panel in white leaded glass

We find in European countries that coats-of-arms constitute a favorite form of leaded glass decoration, the various heraldic bearings often being carried out in tinted glass. Both stained and leaded glass lend themselves well to heraldic design, but in America, where our democratic ideals have led us to refrain from remembering ourselves and our friends of family history in this manner (though there seems no good reason why we should not), we are more apt to select some other device to serve as the decorative motif for the windows of leaded glass we have in our houses. Our favorite pursuits, our hobbies, our favorite flowers, and other things of the sort, come first to our mind when deciding upon some suitable scheme of decoration for leaded glass windows. Indeed, instead of leaving the matter to the taste of some one else, every home-builder should strive to have every feature in the house expressive of individuality, and nothing succeeds in doing this more completely than does the well-designed window in stained or leaded glass—a window expressing the tastes of the owner, or at least strongly influenced by them. The home-builder possessed of skill in designing will find satisfaction in working out patterns for his own house.



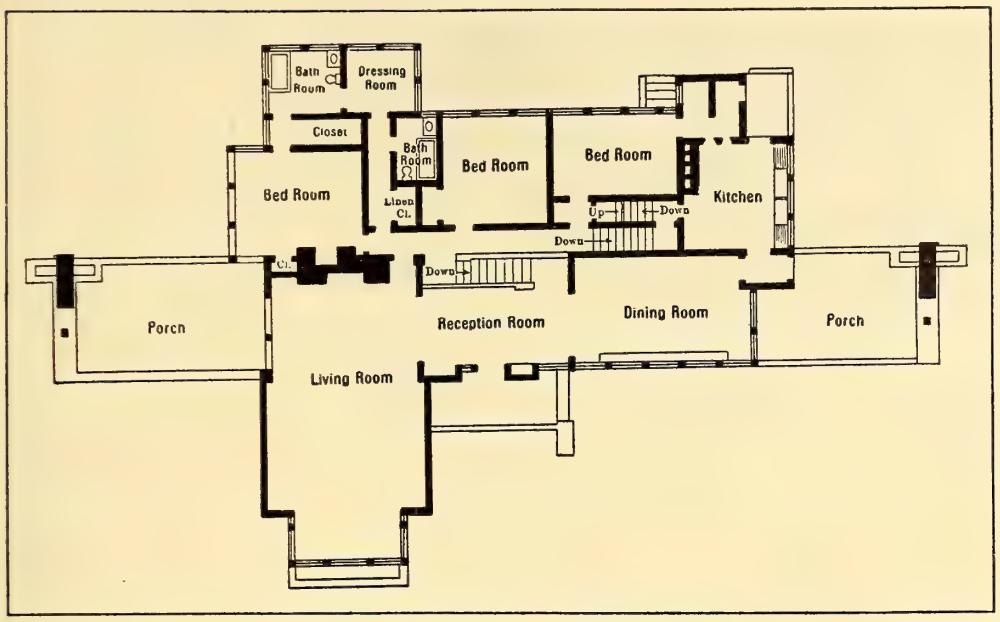
An ingeniously designed window in leaded glass, approaching stained glass in conception

A Western Suburban House

By Robert Leonard Ames

WESTERN archtecture shows much that is bold, rugged, individual, and untrammeled by the devotion to precedent that one is more apt to meet with in the East. This is particularly true of the architecture of Chicago, and its environs. It is not to be wondered at that the city which gave area to some of the best work of Richardson, and which witnessed the rise of Louis H. Sullivan and the school of which he was the most conspicuous member should give impetus to what practically has become a new style in domestic architecture, embodying many of the characteristics of the most successful works of the school of men just referred to who often have been called "insurgents" in architecture by some of their confrères. For lack of a better name "Western Architecture" has come to be used in designating the style peculiar to certain of these architects, who have paid particular attention to the building of suburban houses, among whom the name of Frank Lloyd Wright, who designed the house at Wilmette, Illinois, here illustrated, stands conspicuously prominent in

A residence in the "Western" style of architecture, at Wilmette, Illinois, one of Chicago's most attractive suburbs



Floor plan of the house at Wilmette, Illinois

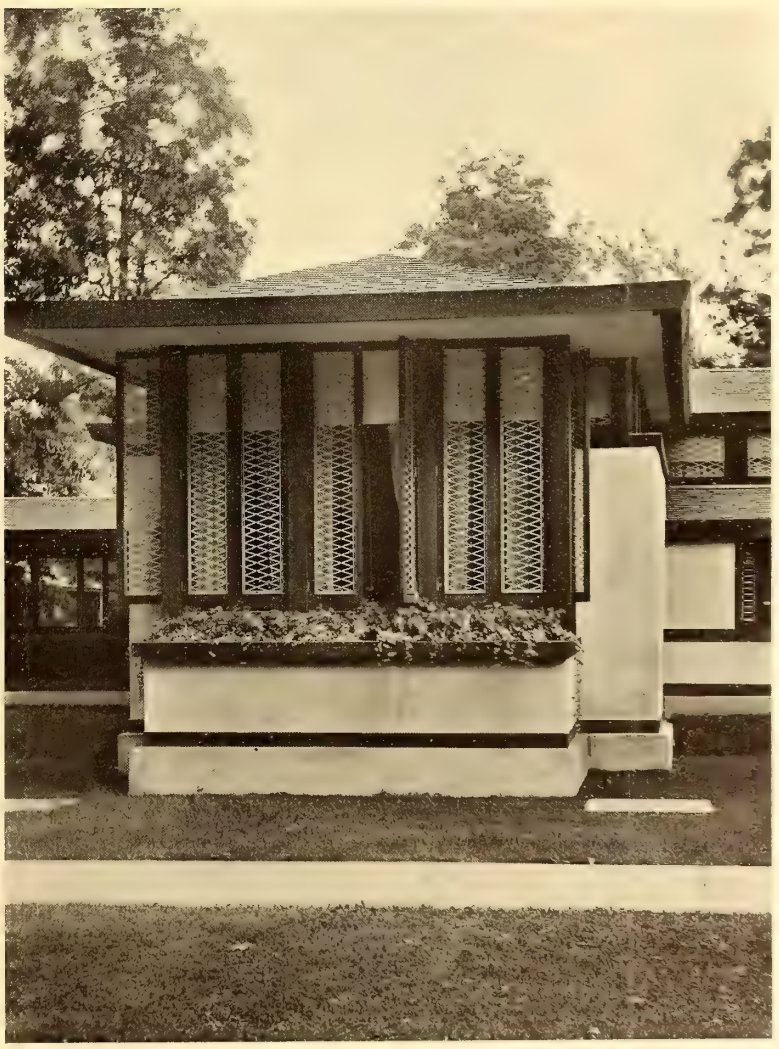
any discussion of the distinct innovations that have come to mark our American domestic architecture, particularly in the Middle West. Probably the most satisfactory examples of "Western Architecture," as applied to the dwelling are to be found in the attractive suburbs that spread out fan-like from Chicago's city limits, sweeping in a semi-circle from the shores of Lake Michigan on the north to the shores of this lake on the south. Perhaps local conditions have had much to do in developing the type of house we are describing herein. The region north of Chicago from the village of Edgewater and Sheridan Park to Lake Forest and Lake Bluff, through which the famous Sheridan Road winds and turns, is marked by many little plains and again by deep valleys and picturesque ravines. Indeed, this tract of land and the region of the lake shore, extending as it does almost to the suburbs of the city of Milwaukee, offers an aspect that makes this "Western Architecture" particularly well adapted to the locality which has brought it forth, there being in perfect harmony as it is with its surroundings, though one doubts if a house such as is here pictured would fit into the landscape of Long Island, New York, the Newtons in Massachusetts, or into the landscape of the environs of Philadelphia as successfully as it does into that of the countryside of Wilmette.

Perhaps no one of Chicago's suburbs is more typical than that of Wilmette. It is both beautiful and interesting. Here one finds the first hill-land north of Chicago and the village lies directly upon the shore of Lake Michigan amidst a dense growth of forest trees. Its homes are, for the main part, ones of moderate cost (several of which, one may mention here, have been described in previous numbers of AMERICAN HOMES AND GARDENS). The architects of these houses have known well how to take advantage of the opportunities offered by the character of the country in the matter of building sites which lent impulse in the direction of individuality.

The house illustrated in this article, designed for its owner by Frank Lloyd Wright, architect, Chicago, is one of the most beautiful and well-planned in this village of distinctive homes. It occupies a flat site in a lovely grove of trees. Like another Western home, described elsewhere in this number of AMERICAN HOMES AND GARDENS, the present house fits into its arboreal accompaniment in a delightfully pleasing manner, emphasizing the good sense and excellent taste of both owner and architect in planning the house to fit its site instead of working over the site to make it fit the house, as necessity too often commands, with the result that artificiality is then apt to become permanent unless rare judgment in adjustment enters into the solution of the problem, as it has so successfully in this particular instance.

The level spot in the grove of well-grown trees suggested the location of the present house, and made it possible to carry out its plan which called for a broad, low, roomy dwelling somewhat of the bungalow type, but strongly "tinged" with the same note that dominates the external appearance of certain bits of Japanese feudal architecture. Its strong individuality neither mars other houses in its vicinity, nor does it lose from any undue proximity to them. Instead, the grounds surrounding the house are ample and there is no feeling that the house overtops the area at the architect's command for its proper setting. There has been plenty of room for it and it has not needed to take up all its room.

The first glimpse of this suburban home reveals a stucco house one story high, to all appearances, though it has actually two stories. Few houses have employed stucco more attractively than this one, if, indeed, any have, utilizing, as it has, broad expanses of wall space uninterrupted, for the most part, by any great number of very low-set windows. As will be seen from examining the illustrations, the fenestration has proved most successful though most unusual in its plan. In fact, this constitutes the most striking constructive note in the entire design of the house, and emphasizes the effect of the broad planes upon which the house is modeled. There is, too, a fine restraint shown in the construction of the roof surfaces, a pleasing angle having been given them from every point of view, special account having been taken of the projection of the eaves, which afford unusually deep soffits that shelter, to some extent, the windows which they cover and heighten the effect of the play



The long casement windows, with their panes of leaded glass, are shaded by the projecting broad soffits of the roof

of light and shadow on the walls, one of the chief charms of stucco construction.

The porches and verandas of the Wilmette house are so placed that they extend the broad horizontal dimensions, thus still further emphasizing the "spreading" effect of the building, an aspect that especially characterizes "Western Architecture" in general. The architect has placed before the house a low terrace and the way in which the approach to the dwelling has been arranged, so that it is thoroughly practical and yet not at all in evidence, is one of its most interesting points.

The floor plans are indicated, as they should be, by the exterior. Here, with abundance of floor space to plan with, a few very large rooms have been devised, rather than a greater number of smaller ones, the result being that the interior of the house well accords with one's idea of what it should be from an external inspection.

A corner of the spacious, well-lighted living-room

The door at the main entrance opens directly upon a square hall from which broad openings invite the visitor into the living-room upon the left and into the dining-room upon the right.

At either end of the long vista thus obtained are to be found generous casement windows reaching from the floor and opening out upon wide verandas, which extend the spacious appearance of the premises.

The living-room of this house might be called literally the heart of the house. It is large and lofty, extending to the roof of the dwelling. This living-room has a deep bay-window at one end, and a wide and deep fireplace just opposite this. The long, narrow, panel-like windows of the bay, with their small panes of leaded glass, extend almost from floor to ceiling and bring the living-room into very close communion with the trees and shrubbery just outside. Small windows placed closely together form a frieze just below the lofty ceiling and flood this beautiful room with light and abundant sunshine. Over the deep fireplace, and extending entirely across this end of the room, is a balcony, made possible, of course, by the unusual height of the room. The balcony is reached by a short flight of stairs leading from the hall. These large and lofty living-rooms are becoming increasingly popular not only in city apartments, but also in country and suburban homes. Their great height makes possible many decorative effects which could not otherwise be had and they are particularly adapted for music-rooms or living-rooms which serve likewise as music-rooms, as their height supplies the space required to obtain the best acoustic results. The objection is sometimes made that such rooms are not homelike and cannot be made to present that domestic and "cosey" appearance which is so desired in a country or suburban home. In this instance the architect has certainly overcome this objection, for here the large floor space and the unusually high ceiling have resulted in no lack of domestic cheer or charm. A living-room in Wilmette would hardly be complete without a broad veranda where one may sit and listen to the roar of the waters of old Lake Michigan. The architect has built on this house a veranda which is reached directly from the living-room, but which is entirely apart from the smaller porch which gives the entrance to the house.

Small windows placed closely together and next the ceiling occupy two sides of the dining-room. The wall spaces just below this frieze of windows afford opportunity for the arrangement of dining-room furniture. Below one group of these windows a broad shelf is placed and around the two sides of the room not occupied by windows there runs a frieze which renders the treatment consistent. Here the woodwork is of dark oak and furniture of the same wood and finish has been introduced. Two windows open into a veranda which is enclosed by a high parapet, thus providing an out-of-doors dining-room, if the owner chooses to put it to that use. The kitchen and the servants' rooms are arranged at one corner of the house and are separated, of course, from the rest of the apartments by a pantry which connects the kitchen with the dining-room and the broad veranda mentioned above.

The dining-room, looking through the reception- and the living-room

In most houses built upon the single

floor plan, the bedrooms are either unduly in evidence or else involve a long, dark hall. Here they are so placed that they occupy another corner of the building and, with their bath and dressing-rooms, are separated by a small hall from the rest of the house. We have never seen a house where such an abundance of window space has been obtained, without detriment to the beauty of the walls or sacrificing to expediency the artistic appearance of the house as a whole.

Interior of the high-walled living-room, showing the balcony

Here are three windows in one bedroom, five windows in another, and two sides of a bathroom and dressing-room are entirely of windows. This is, of course, an ideal arrangement where a house has been planned for occupancy during the entire year, including a long and usually a very warm Summer. One hardly expects to find a second story in a house of this character, which seems to have been planned upon one floor, but an upper story there is, extending over the greater part of the house and reached by the stairway which gives access to the living-room balcony. The rooms upon this floor have an unusual amount of window space and a considerable variety of outlook, as they face in three different directions.

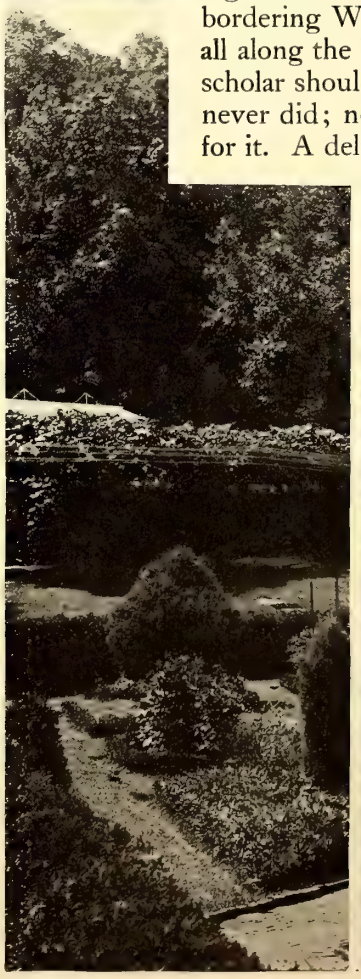
One of the exterior views which is here shown is of the corner of the house containing the bath and bedrooms upon the lower floor. The handling of the horizontal lines here is particularly interesting. The line formed by the veranda cornice is, of course, sufficiently important to be a decorative feature to be reckoned with, and yet to extend the windows from the roof to this line would be to ruin the symmetry of the entire fenestration. The placing of panels of stucco between the window sills and the horizontal band which extends the line of the veranda roof emphasizes just the general effect which the architect has employed so consistently. Another very thoughtful piece of designing is the narrow band of dark-stained woodwork just above the ground, which supplies a note of strength to the entire structure. Still another pleasing detail is the deep window-boxes just below the six windows in the bay window of the living-room. Filled with yellow and red Nasturtiums in Summer and Box in Winter, they would add greatly to the decorative value of the exterior. Indeed, now that we are beginning to discover the architectural value of the window-box as a legitimate decorative adjunct, our American house designers are paying much attention to employing it to enchance their designs.

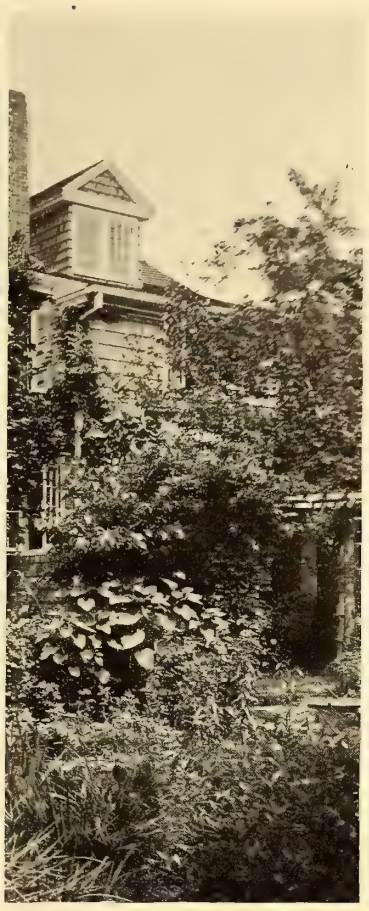
There are many features of this beautiful house at Wilmette which might well be studied by home-builders anywhere. The house would be at home in almost any section of the country and with its lofty ceilings and several verandas, would be quite as comfortable as a Summer home upon the coast of Maine as it would be if it were used as a Winter home in Florida or Southern California. More vines around the larger wall space would complete the decoration.

The play of light and shadow upon the stucco walls and the silhouetted shadows of the foliage produce a really delightful decorative effect

THE ART OF GARDEN

THERE is no reason in the world for belie their European antecedents, no reason at In speaking of the New World's earl this to say apropos of the beginning of found in these stern men than that the among the fibres of their rugged hearts, making them hereditary in the new land." That was tl den whose day extended to Hawthorne's own time. garden into the American landscape as somewhat "new flower beds and borders a jumble of lovely growing of bloom in what we call the Italian gardens; and tl adopted from English gardens have, perhaps, not com A few years ago we were paying little or no attentio a fine one; now all that is different. Every one of us w ing much as Emerson discovered it, when he wrote of wh bordering Walden Pond. "I go thither every afternoo all along the bold shore and open the finest pictures." scholar should shun it like gambling, and take refuge in never did; no sensible man ever will! There is a delight for it. A delight that has taken a firm hold on American



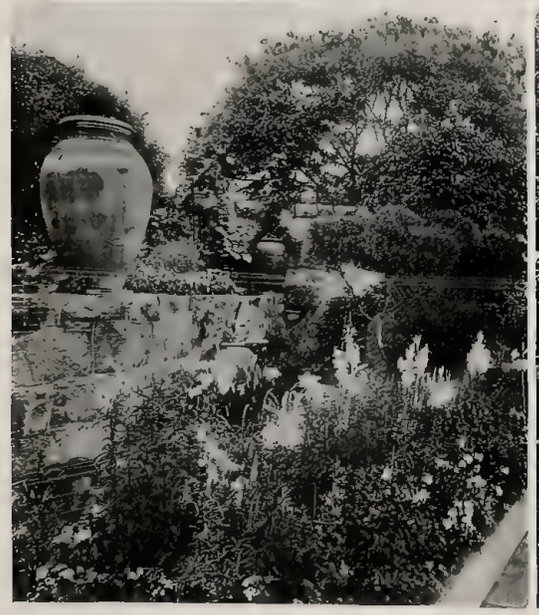


MAKING IN AMERICA

g that American gardens cannot, in time, be as lovely as for not realizing that many of them are already as lovely. ilgrim settlers Hawthorne, in "Our Old Home," had dening in America: "There is not a softer trait to be ıould have been sensible of their flower roots clinging d have felt the necessity of bringing them over sea and lay of the old-fashioned garden, the old-fashioned gar- are inclined to consider the introduction of the formal gled" because we have been in the habit of liking our ıgs, and the nice orderly restraint with its very paucity quaint but stiffly balance-clipped evergreens we have ɔ appeal to us as thoroughly in the past as it now does. o gardens, but just loving them when we came across s a garden. We have come to be "discovering" garden- he called his "new plaything"—forty acres of woodland ıd cut with my hatchet an Indian path thro' the thicket, But it was Emerson who laughingly declared, "A brave es and hotels from these pernicious enchantments." He omparable in planning a garden, ploughing it and caring a delight which has molded the fair gardens we see here.

THE ART OF GARDEN-MAKING IN AMERICA

THERE is no reason in the world for believing that American gardens cannot, in time, be as lovely as their European antecedents, no reason at all for not realizing that many of them are already as lovely. In speaking of the New World's early Pilgrim settlers Hawthorne, in "Our Old Home," had this to say apropos of the beginning of gardening in America: "There is not a softer trait to be found in these stern men than that they should have been sensible of their flower roots clinging among the fibres of their rugged hearts, and have felt the necessity of bringing them over sea and making them hereditary in the new land." That was the day of the old-fashioned garden, the old-fashioned garden whose day extended to Hawthorne's own time. We are inclined to consider the introduction of the formal garden into the American landscape as somewhat "new-fangled" because we have been in the habit of liking our flower beds and borders a jumble of lovely growing things, and the nice orderly restraint with its very paucity of bloom in what we call the Italian gardens; and the quaint but stiffly balance-clipped evergreens we have adopted from English gardens have, perhaps, not come to appeal to us as thoroughly in the past as it now does. A few years ago we were paying little or no attention to gardens, but just loving them when we came across a fine one; now all that is different. Every one of us wants a garden. We have come to be "discovering" gardening much as Emerson discovered it, when he wrote of what he called his "new plaything"—forty acres of woodland bordering Walden Pond. "I go thither every afternoon and cut with my hatchet an Indian path thro' the thicket, all along the bold shore and open the finest pictures." But it was Emerson who laughingly declared, "A brave scholar should shun it like gambling, and take refuge in cities and hotels from these pernicious enchantments." He never did; no sensible man ever will! There is a delight incomparable in planning a garden, ploughing it and caring for it. A delight that has taken a firm hold on Americans, a delight which has molded the fair gardens we see here.



Planning and Planting the Home Vegetable Garden

By F. F. Rockwell

Photographs by Nathan R. Graves

THERE can be no doubt that the home vegetable garden in America is yearly growing more popular. The two most important reasons for this desirable development are obvious. In the first place, vegetables fresh from one's own garden are incomparably better in quality than those which may be had of the greengrocer; and, in the second place, there is the fun of the thing; the fun of planting and managing, even if one cannot do the actual work, though I hazard the guess that if you once get interested in the game you will not stop short of slipping on some comfortable old clothes and getting right down in the good old dirt. At bottom we all have the instinct for it, and it is a good, normal, healthy, pleasure-giving instinct, too. Wholly aside from these considerations, and worth giving a thought to in these days of the "high cost of living," is the fact that the home garden is a money-saver. For several seasons the prices of fresh vegetables have been high, and are likely to be so for several more to come. The home garden makes a very direct appeal to the family bookkeeper.

SELECTING THE GARDEN SITE

By no means the least of garden pleasures is the feeling that you have proved yourself an efficient gardener by going your neighbor one better and getting corn or tomatoes, for instance, earlier than he does. In almost all garden operations, the question of earliness is a very important one. Earliness depends upon both "exposure" and soil. The garden site should, where possible, slope gently to the south or southeast. It should also have protection on the north or northwest. This is a point the importance of which is too little recognized. A hedge, wall or building so sheltering a small garden plot will frequently make a difference of several days in the growing of crops. If no such sheltered spot is available, it is often feasible to put up a cheap board fence as a shield. This offers, incidentally, an ideal spot for coldframes or hotbeds, as indicated in the plan on page 97. The character of the soil also determines the earliness of both operations and crops. The ideal soil is what is known as a light sandy loam—the sort that does not stay "soggy" long after a rain, that will readily crumble apart again after being compressed in the hand. Upon my own place there is a long strip of land ideally "exposed"—sheltered by a hill and a long stone wall, which makes a regular pocket for the first Spring sunshine; but it is never ready to work until a week or ten days after my garden is started, because it is a "muck" loam. One must balance the arguments for and against any particular spot for the garden site, and pick out the best available. Do not worry if you can't get something "just right." Every season's work and observation of the results obtained by others under adverse conditions convinces one more and more that it is the man (or the woman), not the soil, that determines the degree of success to be achieved. Further, do not feel that the garden must be stuck somewhere "out of sight." The garden may be made an attractive feature of the place, as is demonstrated more fully further on in this article.

A Celery garden that is almost as attractive as a field of flowers

PREPARING THE SOIL

Another feature which the

amateur is likely to give too little or no consideration is the correct preparation of the soil. It is as necessary, if one would have a really successful garden, to have this part of the work done right as it is to lay adequate foundations for a substantial house. Just to give this point the emphasis which it deserves, I want to mention a few of the reasons why this careful preparation of the soil is essential before describing how to do it.

Plant early and late varieties of peas for succession. There are few table vegetables of greater value

In the first place, nothing is more important to plant growth than a sufficient supply of soil moisture. Without this, no amount of plant food—manures, fertilizers, etc.—will bring success; no amount of care and cultivation will produce good growth. In a sense, water is to plants both drink and food, for their food must be taken from the soil in solution. The soil serves, in a way, as a tank for the storage of this moisture, and the amount that can be stored depends on (1) the depth of the cultivated soil, the thoroughness with which it is broken up, or (2) the "mechanical condition" and the amount of vegetable, spongy matter, (3) "humus" which it contains. In the second place, most of the "plant food" contained in the soil is in a raw state, called "unavailable." The chemical changes which these foods—forms or compounds of nitrogen, phosphoric acid, and potash—must undergo before being available are hastened by the pulverizing and disintegration of the soil. Therefore it is readily seen that a thorough mechanical breaking up of the ground serves the double purpose of making a bigger tank for the storage of moisture and a better supplied storehouse of available plant food.

As to the actual preparation of the garden plot, the home gardener is usually at a disadvantage. As a general thing he can neither do the work himself, personally supervise it, nor get expert help to do it. All that can be said here is that the soil should be turned over as deeply as possible—that is, as deeply as its former cultivation will allow. Poor, "raw" subsoil should not be turned up on top of the richer surface soil to any extent. A few streaks and patches here and there, that will be thoroughly mixed in by harrowing, will not be any disadvantage and will help to "deepen" the surface soil. The turning of the soil should be done, if possible, with a plow. No spading or digging is likely to do it as thoroughly, and it is many times as laborious. If the patch is so small or so situated that it must be dug by hand, see to it that it is turned as deeply as possible and that every inch is turned. It is getting more and more difficult to find a man who will

Here one sees the gardener tending his rows of well-ordered vegetables. Every garden ought to be as well planned as the one here pictured

do a good honest job at spading. The harrowing is no less important than the plowing. It must be not only thorough, but deep. An Acme or one of the disc harrows is the best to use for the first two or three times over the piece; this should be followed by a smoothing harrow, or one of the above set for "smoothing." As the plow turns the furrow it will leave many lumps unbroken and many empty air spaces deep in the soil. Deep harrowing breaks up these lumps and fills in the holes below the surface. Getting the surface smooth by harrowing shallow, and raking, accomplishes the double purpose of preparing a seed-bed and a soil mulch, about both of which more is said below.

MANURES AND FERTILIZERS

Where it is to be had, the gardener's chief reliance should be placed on good old well-rotted stable manure. No satisfactory substitute has yet been found for it. When one orders manure, it should be obtained at a reliable place, and one should demand only that which is well rotted up, stable and barnyard mixed. The benefit of manure as fertilizer is due not alone to the plant food it contains, but also to the "humus" it furnishes the soil, thus keeping it open and porous and in condition to absorb and retain moisture. It should be spread broadcast on top of the soil, two or three inches thick, and plowed under.

In buying "fertilizer," the purchaser should keep in mind that it is the number of pounds of actual plant food—nitrogen, available phosphoric acid, and actual potash—that determines the value of his purchase, and not the number of pounds of fertilizer. It will be cheaper to get a high-priced brand, such as is labelled "Market Garden" or "high-grade potato with 10 per cent. potash," than a cheap "low-grade" sort. The analysis should be as near "4-8-10" (that is, 4 per cent. nitrogen, 8 per cent. available phosphoric acid, 10 per cent. actual potash) as you can find it. Better still, and far cheaper, if you can purchase the following materials, get—

Nitrate of Soda	100 lbs.
Muriate or sulphate of potash	200 "
Acid phosphate	300 "
High-grade tankage	400 "

and mix your own fertilizer. These amounts will give you enough for one half to one acre of ground, according as they are used with or without manure. Fertilizers should be spread on broadcast after plowing, and harrowed in. There is no danger of your getting your garden soil too rich. The non-professional almost invariably errs in the opposite direction. A well-enriched, well-prepared soil is the indispensable foundation of the successful garden.

Sturdy specimens of the common garden Leek

PLANNING THE GARDEN

Our garden makers have in the past given altogether too little attention to planning their work definitely ahead. It has, in fact, been the opinion of some that in so doing they would sacrifice part of the pleasure and joy of garden making. I believe this to be a great mistake. Not only is the efficiency of the garden increased by careful fore-planning, but there is a certain zest and pleasure in taking your measured plot of soil and trying to make it in yield and appearance come up to your ideal. This work, as well as mastering the details of cultivation, etc., constitute the technique of gardening. The musician's constant practice and study do not mean that he takes less joy in music; your pleasure in gardening will not be lessened by the fact that you make yourself master of the mechanical and scientific details of the art.

A head of crisp-leaved salad Lettuce

The ideal to which you would work up, however, may be one of many. Do you want a garden that will give you the most complete and bountiful supply of vegetables possible, or do you prefer to get the commoner sort from the greengrocer and spend your limited garden time in growing to perfection a few choice things, such as Asparagus, Strawberries, Lima Beans, Muskmelons or Seakale? Do you want a little "patch," to dig around it just for the fun of the work and to see things grow, or do you count to get what you can for the table, and at the same time keep the garden an ornamental feature of the place? These are the general questions which must be decided before you can go ahead with your plans. The suggestions for planting on page 97 give possible solutions of some of these problems. They are meant merely as suggestions, however, and may be altered or changed to suit one's personal taste or requirements. There are, however, a number of general principles, based on good common sense, which one does well to keep in mind when planning the garden, especially the garden designed to furnish the greatest variety and quantity of vegetables possible from a limited area. As such a garden is likely to be the one most in demand, we will consider it first.

In the first place, we must take into consideration the fact that a number of the crops grown will occupy the ground only part of the season; in other words, they will mature and be cleared up in time for the ground to be used for something else. Radishes, Lettuce, early Beets, early Cabbage, are examples of this class. These and the late vegetables used to follow them, such as Celery, late Cabbage, late Beets, are called succession crops. The garden should be so planned with these second plantings mixed.

Then there are certain crops which, if planted at the same time, will mature at different seasons. Often they can be planted on the same plot, usually in alternate or skipped rows, and the early crop is out of the way by the time the second one needs all the space. This is called "Companion Cropping." Lettuce between early Cabbage, Radishes between Carrots, Celery between Onions, are examples of this system. Then, too, some of the taller-growing things, such as Corn and Peas, should not be placed immediately south of low-growing things, especially such as require all the sun-

This shows the formation of a good Lettuce head

shine available at all times, like early Beans for example.

There is also the matter of convenience in cultivating to be considered. Crops that require practically the same treatment, as, for instance, sowed Beets, Carrots, Parsnips and Onions, should be kept together, especially where they are to occupy the ground the season through. All these things must be borne in mind in planning one's garden for the greatest efficiency.

The simplest, most time-saving way is to make an actual plan of the garden, drawn to scale, like that suggested on page 97. You will find it much more agreeable to make your garden mistakes on paper, where they can be erased, than in the soil, where the damage done is for the whole season. If your garden is to be one of the other types mentioned, for instance, just for a few favorite vegetables, the planning need not be so carefully done. In this case the thing to take most pains with will be to get the proportions right. It is no easy task to arrange your planting so that the supply will be constant, instead of in "bunches"—enough for three families one week, and not any the next. *If the garden space is limited, I believe much more satisfaction is to be had in growing the few things which the family particularly likes, than in trying to crowd in the whole list.* The possibilities of making the garden more or less of an ornamental feature are much greater than we usually realize. In many instances it may seem desirable to sacrifice part of the garden, as measured by mere bulk of crop, to aesthetic considerations. A garden planned with the idea of being in harmony with the landscape features of a place, rather than solely as a vegetable factory, is suggested on page 97. Where the walks are bordered with turf and a few fruit trees may be brought within its bounds, very pleasing results can be attained.

SELECTING SEEDS AND VARIETIES

There is nothing more exasperating to the gardener than having a crop fail because of poor seed. Having gone to all the labor of properly preparing and fertilizing his soil and planting; having waited and watched anxiously, and then to have but here and there along the row a stray, struggling seedling push its way through the soil, is indeed disappointing. Buy always the best seed you can get. Inferior seed is costly if it is to be had as a gift. The safest way to buy seeds is to order them by mail from the most reliable firm you know of. And order them *early*. By waiting you may not be able to get just the varieties you want, or you may get old or light seed.

Another thing which will require a good deal of care is the selection of varieties. A good rule to go by is to get several catalogues and order those varieties which are recommended by several seedsmen. Fight shy of the "novelties" that are lauded to the skies—and priced in the same region. The good old standard varieties will, in the majority of cases, give you the best satisfaction, catalogue pink pages and colored plates to the contrary notwithstanding. In the table on page 96 are suggested sorts which, in most instances, have been tried and given good results for years. Each season I try out many "introductions"— I learned long ago to get them by the packet only—and in nine cases out of ten they are an improvement over sorts that have been grown for years.

Do not lay every failure you have to the seedsman. In the majority of cases the fault will prove to be, upon investigation, with your work and not with the seeds. Find out all you can about the particular requirements of each thing you attempt to grow. It might seem to you, for instance, quite reasonable to plant all your early Peas just as soon as you could get the ground ready. The "smooth" sorts would come up finely, while the wrinkled ones, such as "Gradus," would probably rot in the cold, wet soil. The inexperienced gardener would blame this to "poor seed." Disgusted with one failure, he would probably re-order the same variety from another seedsman, plant ten days later, when things had warmed up a bit, get a good "stand," and be convinced that the last seedsmen were the only people to deal with.

BUYING PLANTS

A number of the early things in the garden—Lettuce, Cabbage, Cauliflower, Beets, etc.—will be "set out" instead of grown from seed. The majority of small gardeners have no greenhouse or other facilities of their own with which to "start" the few dozen plants required. The best way for them is to go in person to some local florist, or market-gardener and buy what they need. Remember, that the quality of plants for "setting out" is not to be measured wholly by their size. Select those which are short, "stocky" and well "hardened off"—that is, which have been out of doors, day and night, for several days. A tough, purplish look does not indicate that they have been injured—the opposite, rather.

SOWING AND PLANTING

Just as it is vitally important to plant seeds at the right time, so it is to plant them at the right depth, and in the right way. The usual distances for depth, etc., are given in the Planting Table herewith. The columns showing distance apart and distance between rows also show the space usually allowed, although it may be varied one way or the other, as space or varieties make it necessary. "Drills," "rows," and "hills" indicate the *method* of planting. The first has reference to the sowing of seeds continuously and rather close together, as with Carrots, Onions and other "root" crops. The second, to sowing seeds or setting plants at regular intervals, such as Okra, Peppers or Cabbage. "Hills" does not indicate, as many

Wax Beans are one of the best garden crops

SPRING

PLANTING TABLE FOR VEGETABLES

Vegetables	When to Plant	Amt for 50ft.rw.	Distance to Plant		Depth to Plant	Class	REMARKS
			In Run	Rows Apart			
Asparagus (Plant)	April	50	1 ft.	3 ft.	4 in.	B	Plant in rows heavily manured, spreading the roots out evenly. Do not cut for use until **second** spring. Keep bed clean; cut off tops in the fall. Transplant thiru spring.
Asparagus (Seed)	April-May	1 oz.	2 to 4 in.	15 in.	1 in.	B	
Bean, Dwarf	May 5-Aug. 15	1 pt.	2 to 4 in.	1½ to 2 in.	2 in.	C	The first sowing should be but an inch and later sowings two or three inches deep. Does not require richest soil. Never work or pick when foliage is wet.
Bean, Lima	May 20-Ju. 10	½ pt.	3 in.	3 in.	2 in.	B	See below.
Bean, Pole	May 15-Ju. 10	½ pt.	3 in.	3 in.	2 in.	B	Hills should be especially prepared with old, well-rotted manure. Building laths nailed across 2x3-inch posts, 7 feet high, make a better support than poles.
Beet (Early)	April-June	1 oz.	3 to 4 in.	15 in.	2 in.	A-D	Make first sowing extra thick, as soon as ground can be worked. Plants started under glass can be set out, 6 inches apart.
Beet (Late)	April-August	1 oz.	3 to 4 in.	15 in.	2 in.	B-E	As above.
Broccoli	April-July	35	18 in.	2 ft.	½ in.	A-C	Similar to Cauliflower, but hardier.
Borecole (Kale)	April-July	25	18 in.	2½ ft.	½ in.	E	See Kale.
Brussels Sprouts	April-July	35	18 in.	2 ft.	½ in.	A-E	Improved by frost. One of the best winter vegetables.
Cabbage (Early)	April	35	18 in.	2 ft.	½ in.	A-C	Give richest and deepest soil. Keep free from green cabbage worm. Cultivate often. Can be set out as early as ground can be worked.
Cabbage (Late)	May-June	20	2½ ft.	2½ ft.	½ in.	A-E	As above.
Carrot	April-July	½ oz.	2 to 3 in.	15 in.	½ in.	C-B	Soil should be deep and not too rich. Apt to come up too thick and need thinning.
Cauliflower	April-June	35	18 in.	2 ft.	½ in.	A-C-E	Not quite as hardy as cabbage. Must have water at heading period. Tie up leaves over head as soon as it forms.
Celery (Plants)	July 1-Aug. 1	100	6 in.	3 to 4 ft.	¼ to ½ in.	A-E	See below.
Celery (Seed)	April	1 oz.	1 to 2 in	1 ft.		A	Start early crop under glass (Feb.-Mar.) and main crop outside under glass in seedbed (April). Transplant before setting in permanent position. Must have moisture and be "blanched" with either boards or soil.
Corn	May 10-July 1	½ pt.	3 ft.	3 to 4 ft.	2 in.	B-E	Frequent shallow cultivation is the secret of success in growing corn. Allow but four to five stalks to each hill.
Cucumber	May 10-July 1	½ oz.	4 ft.	4 ft.	1 in.	A-B	For extra early plants, start seed in inverted sods in frames. Make rich hills. Keep off the Striped Beetle!
Eggplant	June 1-June 20	25	2 ft.	2½ ft.		A-B	Give richest soil. Must be watched and watered in dry weather. Keep off the striped Potato Beetle.
Endive	April-August	½ oz.	1 ft.	1 ft.	½ in.	A-E	Best for fall use. Prepare ground as for lettuce, but must be blanched by tying up or shading.
Kale (Borecole)	April-July	25	18 in.	2½ ft.	½ in.	E	Sort of bouquet cabbage, used as "greens." Improved by frost, and should be grown for winter.
Kohl-rabi	April-June	½ oz.	6 to 12 in.	18 in.	½ in.	C	As easily grown as turnips. Use when small (not more than two inches in diameter).
Lettuce	April-August	½ oz.	1 ft.	1 to 1½ ft.	½ in.	C	Make successive plantings every ten days, using loose-head types in mid-summer. Quality depends on quick growth.
Leek	April	½ oz.	2 to 4 in.	15 in.	½ in.	A-B	For best results, transplant and keep hilled up to blanch.
Melon, Musk	May 15-Ju. 15	½ oz.	4 to 6 ft.	4 to 6 ft	1 in.	A-B	Light warm soil. Same care as cucumber.
Melon, Water	May 15-Ju. 15	½ oz.	6 to 8 ft.	6 to 8 ft.	1 in.	B	Make rich hills. To insure ripening, pinch back the vines at about six feet.
Onion	April	½ oz.	2 to 4 in.	15 in.	½ to 1 in.	A-B	For big specimens, start indoors and transplant. Plant outside crop as soon as the ground is ready. Soil must be perfectly prepared.
Okra	May 15-Ju. 15	½ oz.	2 ft.	3 ft.	½ to 1 in.	B	Plant only after soil is thoroughly warmed up. Seed in drills.
Parsley	April-May	½ oz.	4 to 6 in.	1 ft.	½ in.	B	Soak seeds before planting and put a few radish seeds with them to mark rows, as parsley germinates slowly.
Parsnips	April	½ oz.	3 to 5 in.	18 in.	½ to 1 in.	B	Sow early in deepest soil available. Thin out **while small.**
Peas	April 10-Ju. 15	1 pt.	2 to 4 in.	4 ft.	2 to 3 in.	B-E	Plant early! Sow in double rows, and give brush or supports between. First sowing one inch and later two or four inches deep.
Peas (Smooth)	April 1-Aug. 1	1 pt.	2 to 4 in.	3 ft.	2 to 3 in.		As above.
Pepper (Plants)	June 1 to 20	25	2 ft.	2½ ft.		B	Same treatment as egg-plant.
Pepper (Seed)	June 1	½ oz.	3 to 6 in.	15 in.	½ in.	A	As above.
Potato	April 15-Ju. 20	½ peck	13 in.	2½ ft.	4 to 6 in.	B	For best results, use light but rich soil, finely prepared, and cut pieces to one or two eyes. Cultivate frequently, and keep Potato Bugs away.
Pumpkin	May 1-Ju. 20	¼ oz.	6 to 8 ft.	6 to 8 ft.	1 to 1½ in.	B	Use the "sugar" or "pie" variety. Same care as squash.
Radish	April 1-Sep. 1	½ oz.	2 to 3 in.	1 ft.	½ in.	C	Plant every week for best quality. Add land-plaster to the soil. Water if dry.
Rhubarb (Plants)	April	25	2 to 3 ft.	3 to 4 ft.		B	Set out root-clumps. Give them dressing of bone meal and soda in the spring.
Salsify	April-May	¾ oz.	3 to 6 in.	18 in.	1 in.	B	One of the best vegetables grown. Treat same as parsnip.
Spinach	April 1-Sep. 15	½ oz.	3 to 5 in.	18 in.	1 in.	A-B-E	Swiss chard, while not strictly a spinach, should be tried With many it is entirely replacing the latter. Both should be grown as rapidly as possible.
Squash, Summer	May 15-July 1	¼ oz.	4 in.	4 ft.	1 to 2 in.	B	Hills should be well enriched. Use coal ashes with the manure. Protect growing plants from Striped Beetle and other insects.
Squash, Winter	May 15-June 20	¼ oz.	6 to 8 in.		1 to 2 in.	B	As above.
Tomato (Plants)	May 15-July 20	20	3 ft.	3 ft. 4 in.		B	Set out when danger of frost is over. Enrich soil with bone flour. Lath supports (see beans, pole) are an improvement over poles. Keep tied up and remove all "suckers."
Tomato (Seed)	June	½ oz.	3 to 4 in.	15 in.	½ in.	A	
Turnip	April-Sep.	½ oz.	4 to 6 in.	15 in.	½ in.	C	Quality is better on sandy soil. Plant frequently and use when small.

Dates given are for latitude of New York. Each 100 miles north or south will make a difference of from 5 to 7 days in the season. The distances given here indicate the distance apart the plants should stand **after** thinning. The seed should be sown much nearer together. (A) These plants may be started early (in the greenhouse or hotbed, in early spring, or outdoors in the seedbed later), and afterwards transplanted to their permanent location. (B) These crops usually occupy the ground for the entire season. (C) These are quick maturing crops which, for a constant supply, should be planted at several different times in "succession"—a week or two weeks apart. (D) These are crops which often may be cleared off in time to permit planting another quickly maturing crop, usually of some early variety. (E) These crops are supplementary to those in Class D, and may be used to obtain a second crop out of the ground from which early crops have been cleared. The abbreviation Ju. here used indicates the month of June.

beginners think, that the seeds should be planted on miniature mounds, but that the seeds or plants are put in at regular distances — usually the same in each direction—with the purpose of cultivating *both* ways, as with corn (sometimes), or melons, or squashes.

One thing above all must be kept in mind in planting seeds, especially in dry weather — *firm the seeds in the soil.* Seeds, particularly small seeds, planted loosely in dry soil are the cause of more poor germination than any other single garden error. After sowing, and before covering, press the seeds down into the soil firmly, with the back of a narrow hoe or rake or the flat of the shoe. If it is important to get the soil firm in very driest of weather, may be thoroughly relied upon to live, and this operation in planting must not be overlooked.

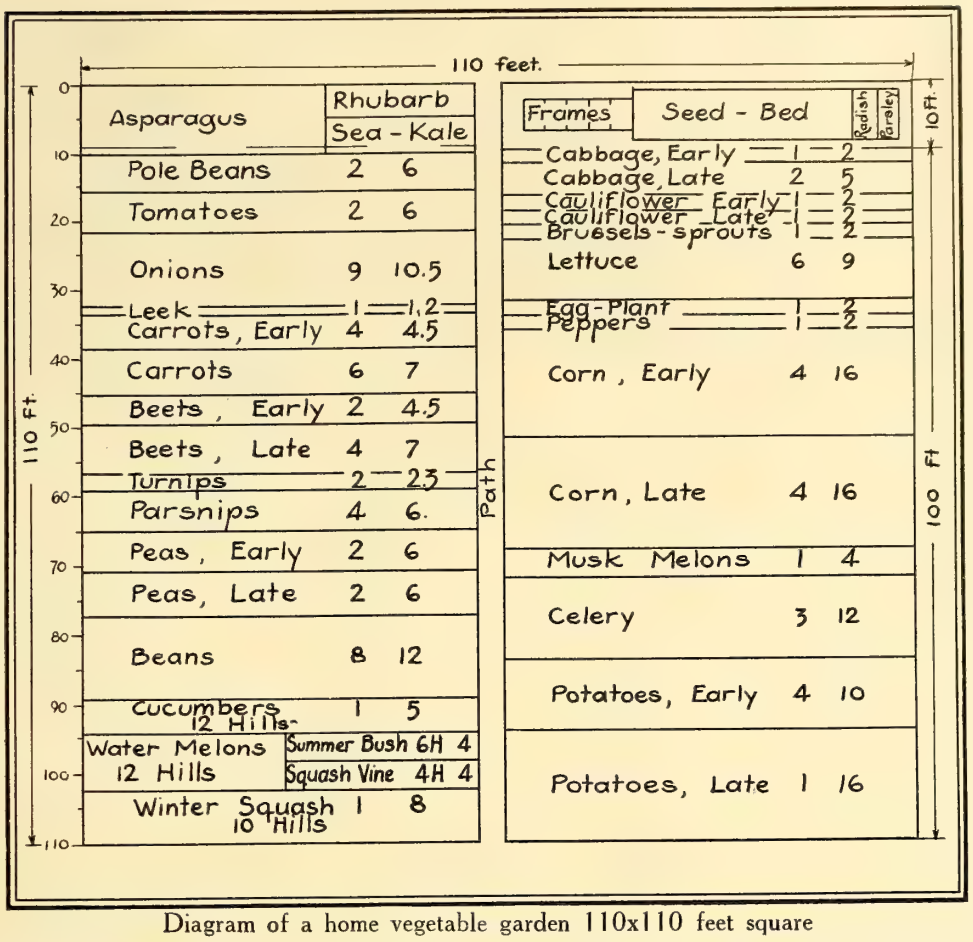


Diagram of a home vegetable garden 110x110 feet square

sowing seeds, it is doubly so in setting out plants. Having got the ground ready and the rows marked out, take the plants out of boxes or pots with as little disturbance as possible, make a hole with fingers, trowel or dibber, and set the ball of roots down into it. Cover in with fresh soil and press down evenly and firmly as possible. Then, when you finish the row, come back over it and set the plants still more firmly by placing the soles of the shoes one on either side of the plant and letting the weight of the body bear down upon them. The majority of plants so "firmed," even in the

A Chalet on the Maine Coast

By Russell F. Porter

A CHANCE summer wanderer to Land's End, late in the season of 1909, was very much taken with a certain spot on the ocean shore where the ledges formed a natural bathtub. By this is meant a depression in the rocks, just below high tide, where the salt water is warmed by the sun, and bathing in the cold waters of the Maine coast is rendered comfortable. Twice a day, high tides clear and replenish the reservoir.

"Build me a cottage here," said the summer pilgrim, standing on the raised beach directly back of the bathtub. "Cut no more trees than necessary; construct the building so as to accommodate three or four persons, but make it cozy; reduce household drudgery to a minimum; give me a sleeping-porch and a fireplace, and use whatever style you will. But it must come under six hundred dollars and you must first find me drinking water."

With these requirements on the part of his client, the artist-builder set to work. He was fortunate with the well, over which he had held grave doubts. After all, a sure source of good water is a first essential. Fall was then well over, but he knew the value of getting the foundations down before Winter set in, for he must lay the sills before the frost was out of the ground the following Spring. But the cottage would not take shape, neither in his mind nor on paper, and time went by.

In January he went sketching in Italy. On his flying return across the Continent he passed through Switzerland in the daytime, by the St. Gotthard route. "There," he exclaimed, as the train emerged from the long tunnel and pulled up at a small hamlet where the firs and spruces walled in the houses in dense masses of deep green. "There," he exclaimed again, the blue shadows on the snowdrifts making him homesick for New England, "I will build for my Summer home a Swiss chalet such as these. The setting will be highly appropriate. Why not a Swiss chalet, modified to fit the Maine coast?"

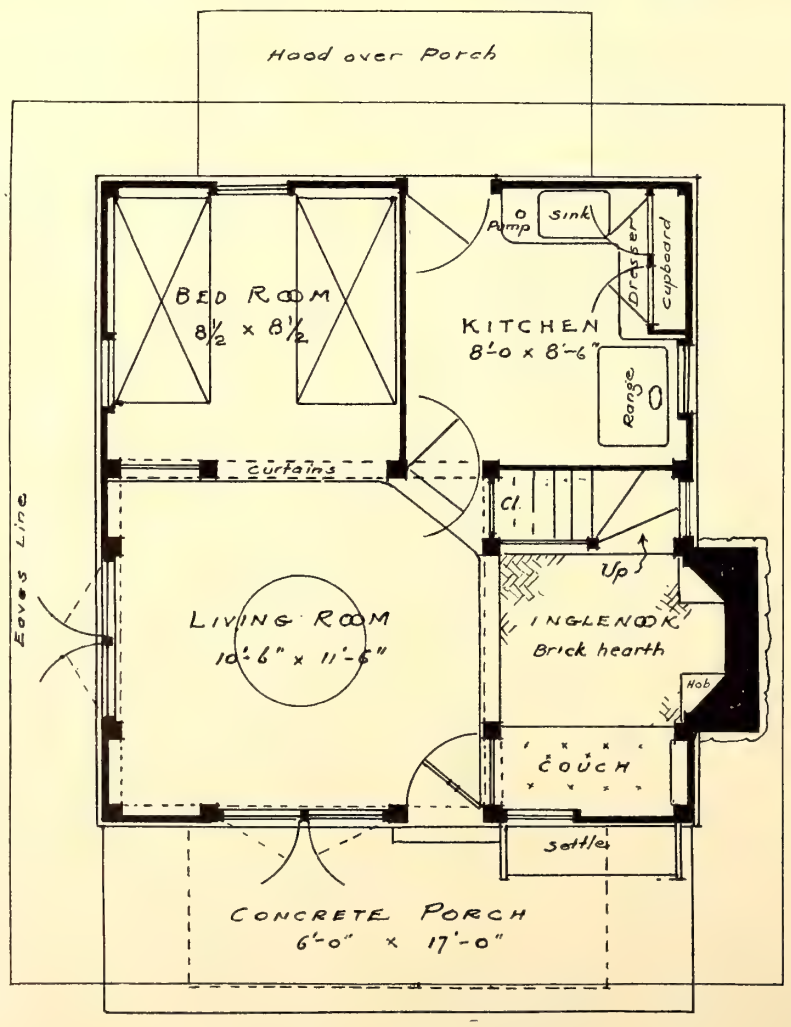
As the train wound down through the valley, the artist-builder was busy with his sketchbook, catching fugitive details needed from the brown huts hugging the mountain sides. And so the chalet was born. Bedrock was just under the grass roots, and it allowed him a concrete floor to the porch, also a hearth to the fireplace that completely filled the inglenook, at a low cost. Gravel ranging from coarse sand to pebbles the size of hens' eggs was there for the asking, and a few barrels of cement did the rest.

The colossal scale of the gable being the characteristic feature of Swiss houses caused the builder some concern, as this construction is entirely honest and the beams are all hewn by the axe. He solved it by buying an old nearby barn, tearing it down and using the heavy frame for the living-room posts, the floor beams overhead and the roof purlins. A shipyard furnished six huge ship's knees, which amply bracketed out and supported the porch and the roof overhead.

The brown, almost black, color of Swiss beams was obtained by staining them with tar and linseed oil. Cypress shingles laid well to the weather covered the walls down to the line of the window stools, and from there down the walls, after first applying a heavy builder's paper, were covered with spruce slabs, the bark on, their sides edged, and running up and down. This up-and-down treatment per-

Here one sees pictured an interesting chalet type of Summer cottage, delightfully situated on the edge of the picturesque shore of the Maine coast

mitted the slabs coming clear to the ground and covering the unsightly spaces below the sills, so often seen under cottages supported by piers or posts. More for effect under the gable than for utility, the roof rafters were covered with three-inch strapping, to which the shingles were nailed. Inside, the plan is simplicity itself. It comprises a small low-beamed living- and dining-room and inglenook combined, a bedroom and a kitchen. The living-room is one step below these other rooms, and has a shelf at the height of a platerail appearing and disappearing between the heavy posts and wall openings. The windows here are small-pane casements and swing outward. A tiny flight of stairs leaves the inglenook for the chamber overhead. Opposite it is a built-in couch with bookshelves handy, and between, the firebreast boasts a large metal hood, across which is beaten in, with a nail-set, the legend, *Sic Habitat Felicitas.* The face of the fireplace has the butts of clinker brick showing hit-and-miss across the different courses. The glazed



First-floor plan of a chalet on the Maine coast

leaden surfaces of these bricks contrast pleasantly with their red neighbors. The ample hearth is of brick, laid in herring-bone pattern, worthy of the nook.

Above, the large chamber gives through a glass door to the sleeping-porch, tucked up under the gable. Here the weary city worker sleeps the clock around and absorbs the heavy balsam odors against another year of toil among the cliff dwellers. Here he looks over the tumble of ledges with its natural bath-tub, looks out across the Atlantic Ocean, with nothing between him and Spain but the heaving deep. The outlook is hardly that of a Swiss chalet, hardly suggestive, perhaps, of anything approaching Alpine scenery by reason of the sea taking the place of mountains, but the cottage itself seems remarkably at home in its surroundings. And from the water this abode, with its Mullein-green roof, its brown and gray walls, and a figure lazily stretched out on the high-backed settle of the porch, appear to be saying, "It is well worth six hundred dollars." And it truly is!

Door-Knockers Along Old Lines

By Hewitt Trent Cooper

Photographs by T. C. Turner

Gothic door-knocker

Colonial door-knocker

THERE is always delightful suggestion in the coming upon a door having a knocker. Despite our ingenious era, with its endless system of electric bells, there is nothing that quite takes the place of the old-fashioned door-knocker in the matter of external evidences of the hospitality to be expected from within. Surely the one-time pull-bell, heralding the visitor's approach like a terrifying clash of cymbals divided into echoing successions of noisy sound, and as often coming out by the roots, to the said visitor's discomfiture, could not obliterate from the memory the cheery sound of the tap at the door of the knocker that sought, in a sense, to imitate man's signal and save his knuckles. That the old-fashioned door-knocker had a decorative value as well as its utilitarian one further endeared it to custom. Indeed, despite the changes of our own day, we have been not only reluctant to give up the beloved door-knocker, but we have made up our minds to restore it to its old place of honor. Some of us do this for aesthetic reasons, while others permit it to maintain its utilitarian offices. Indeed, it is possible to adapt the door-knocker of the days gone by to our present needs by contriving to fit it with hidden electric connection, so that we knock and ring at one and the same time. The writer has seen several door-knockers of this sort, so fitted that raising the knocker produced connection with the electrical current, which caused the bell to ring in its place inside the house. For the small house, the knocker itself usually suffices to inform the occupants that the visitor is without, and in modern cottage architecture we find its use returning to such an extent that our leading manufacturers of architectural hardware are making a specialty of attractive door-knockers, especially of reproductions of famous old door-knockers or adaptations of old patterns. Arts and crafts workers, too, are turning their attention to the subject of designing door-knockers along artistic modern lines, and the German artists, particularly those of Munich and of Darmstadt, have produced some very fine work along original lines. It is very interesting to be the possessor of a door-knocker that is unique, that has been especially designed for one's own house, carrying with it the distinction of its own individuality, but since everyone cannot indulge even in the limited luxury of an object to order of this sort, it is fortunate that one may now purchase fine reproductions in bronze, brass and wrought iron of historic knockers, faithfully copied, many of them from originals now treasured in the various museums of Europe and America.

Windsor Stag door-knocker

Falstaff door-knocker

A Baronial door-knocker for the massive door

Robin Hood door-knocker

How to Make Good Lawns

By Albert Lewis

THE lawn is a canvas on which the landscape picture is created, and it not only forms the largest part of most ground views, but is an element of beauty in itself, and surely the verdant sward is the most beautiful element in the composition. The lawn to most people is thought of as being merely the closely-cut area about the house, but all lawns are not necessarily clipped, and among the most beautiful lawns of the pasture are those that have been allowed to grow naturally and to display their beautiful shades of rich bronze and green.

The greatest mistakes in lawn-making are caused by employing the wrong cultural methods, and varieties of seed, in the problem in hand. Let us assume that we have a new home, and have completed the grading operations, and the top soil has been placed over the filled material to a depth of at least six inches, and that a gradual, sloping grade has been established for proper drainage. If the ground is low and damp, or has a subsoil of clay, it would be best, at the start, to lay drain pipes from two to three feet below its surface, running toward the lowest point, there to empty into a main-drain, gutter or disposal plant. These drains should be at least thirty feet apart, especially in a heavy clay soil, and lateral drains would be advisable in a very low section. The best drain-pipe is the burnt-clay tile sort, laid end to end, with a fall of one inch in six feet, taking care that the bottom of the trench is a constant grade, so that the pipes will not be clogged. Over these pipes the fill should be of stone or gravel, to convey the water to the intersections where they enter the pipe, and to prevent the looser material from clogging the drain; then the top soil should be placed, thus completing the grade. A study of the soil is first necessary as to its richness and texture; whether sour or sweet; and its stony condition. Soil that is rich is very often acid, which can be corrected by applying air-slaked lime in sufficient quantity to correct the acidity. This can be determined by a litmus paper test, familiar to everyone.

With sandy soil, the question of fertility is of prime importance. The cheapest means of securing it is by Fall plowing or early Summer plowing for the year to come, sowing down the area with a leguminous cover crop, whose roots will collect and store nitrogen from the air. In the following Spring this crop is plowed under for use as fertilizer. Where the lawn must be made without this previous preparation, the entire area should be covered with at least fifteen tons of well-rotted manure, preferably cow manure, which does not contain weed seed, and then plowed in. Where this is not possible, chemical fertilizer should be used in the following quantities: five hundred pounds of a standard phosphate with two hundred pounds of nitrate of soda per acre, and thoroughly plowed in. This applies to stony ground, from which the stones in the first three inches of depth have been removed by raking, and also to hillside conditions, where the soil is usually poor. After this fertilizing, and when the soil is perfectly mellow and a smooth surface is secured by constant work with an iron rake, we are ready to sow, which operation must be done on a day when the wind will not blow the seed. In the matter of variety, seed should be selected for the soil and shade conditions. In an open lawn, under ordinary conditions, a good mixture is five bushels per acre of Poa Pratensis mixed with Agrostis Acamna.

An attractive lawn vista is always desirable

For somewhat shaded areas, a mixture should be used of Poa Nemoralis and Festuca Helero Phylla. For use under trees, where it is difficult to secure a lawn of any kind, the ground should be covered with Myrtle or Hedera Ivy. After the

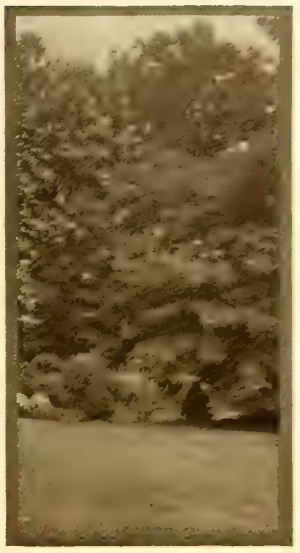
seeding has been applied, going over the surface twice from opposite directions, the area should be again raked and treated with a heavy roller till perfectly level.

After two weeks, or when the lawn starts to grow, all weeds should be removed by hand process for the first part of the Summer, although a lawn properly made will contain very few weeds. When the grass is three to four inches high it should be cut with a scythe till strong enough to bear the mower. Should any bare spots appear, they must be made mellow and again seeded down. The expense of constructing a lawn in this way, under ordinary conditions, would be about $60.00 per acre, the seed and manure costing $40.00 and the labor about $20.00.

In the treatment of old lawns that have become poor through a lack of fertility, they should be either entirely plowed up, after covering the entire area with twenty tons of manure per acre, and constructed as is prescribed for a new lawn, or temporarily maintained by a top dressing with about two inches of rich top soil, mixed with chemical fertilizer, and seeded down and rolled, although this process is nearly as expensive as overhauling and making an entirely new lawn, which would last for many years.

The annual treatment of a lawn requires the use of a heavy roller in the Spring, after the early rains, and again about June, and in September. During the Summer dry spell, where a lawn is built on shallow top soil or with insufficient drainage, and where plants are shallow rooted, the area must be watered artificially. Other than the usual cutting with the lawn-mower, there is no other care, unless the entire area be covered with manure in December, and after the Spring rains have washed the nutriment into the soil, the spreading be removed.

Now that we have discussed the method of making the lawn, let us see what things we must not do in the operation.



We should not attempt to make a lawn on soil that is not naturally rich till it has been thoroughly fertilized. A precaution in the matter of manure is that green manure contains weed seed, and a satisfactory lawn cannot be made with it. The physical condition of the soil should be very mellow and friable. This is secured only by plowing twice, in opposite directions, and if a clayey soil, a subsoil plow should be then used to give the lawn depth and to supply better drainage. On sandy soils, the matter of drainage generally cares for itself, although a gradual slope from the house should always be provided for; but on a heavier clayey soil a soggy condition exists at certain seasons of the year, and this excess water must be immediately removed through the employment of ample artificial subdrains. Ground that is drained furnishes a greater area for root growth, and lawns that are subdrained are less apt to dry out during seasons of drought or to freeze during severe Winters, and such lawns always present a healthier, greener appearance, because of their extra feeding ground and abundant supply of plant food. These lawns are more permanent and satisfactory.

A word about the variety of seed. The seedsman in your locality has made a test of the varieties best suited to your local climate and soil conditions, and has a mixture of seed better adapted than one that you might prepare yourself. The very best quality should always be bought, and usually at an advanced price. Such seed are free from weeds, and it is cheaper to avoid weeds by purchasing the best quality of seed.

Where there is considerable shade, and in such localities that will be constantly damp, it is unwise to attempt to develop a lawn. If you are not fond of Myrtle or Honeysuckle, raise such herbaceous plants as Iris, Lily of the Valley and other Lilies, Yucca, etc. Where the grade is steep,

(*Continued on page 108*)

When this lawn is fully "grown" it will be one of the attractive features of the house, for which it forms a very appropriate setting

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

THE VALUE OF "EFFECT" IN INTERIOR DECORATIONS

By Harry Martin Yeomans

ONE need not despair of getting satisfactory results, when decorating the rooms of an old house, or even those of a new one, where existing conditions have to be coped with, and for economic reasons it is expedient to make the best of poorly designed woodwork, ceilings that are either too high or too low, windows that are badly placed, and-so-forth. This has special reference to rented houses or apartments, where, although the architectural defects cannot actually be changed, one can create an "effect" or optical illusion, so to speak, which will do much towards blotting them out and make objectional features less apparent. By emphasizing the good points of an interior and keeping the bad features in the background, even the most unpromising material can be molded into a homelike and artistic room. We must first create a suitable setting for our furniture and pictures, however, and this can only be accomplished by first getting a harmonious background, in which each component part keeps its proper place and against which our furniture will appear to the best advantage.

A PLENTIFUL use of paint and wall-paper, when properly applied, is an excellent antidote for remedying the defects of a poor interior. The badly designed wood trim of a room will not be so conspicuous if it is treated to a few coats of paint, slightly darker in tone than the color that is going to be used on the walls. The paint should have a dull, flat surface when dry, as it will give a much better effect than a hard enameled or glossy finish. By having the side walls and woodwork almost the same tone of color, the outline of the woodwork will be softened to a very considerable degree and the two will blend harmoniously together. In this manner uncompromising woodwork can be "painted out" and its defects will pass almost unnoticed. If the wood trim is good enough to stand white paint, let it be a deep ivory-white, which is so much more attractive than the pure white or blue-white which is so often used.

The plain or almost plain wall-papers, those printed in two tones of the same color and having a small repeat, which have the effect of plain papers at a little distance, will make small rooms appear larger, while wall coverings having large designs of contrasting colors, and dark tapestry papers, will have the opposite effect, and should be avoided in small rooms when the appearance of greater space is desired. The two-toned striped papers, or wall-papers having small designs arranged in an up-and-down pattern, will have a tendency to make a room appear higher than it really is if the paper is run right up to the ceiling and finished with a narrow molding. To obtain the opposite effect and reduce the apparent height of a room, one must create interesting lines running around the room parallel with the lines of the floor and ceiling. This can be accomplished by using either a high or low wainscoting or a dado, or, in a living-room or library, low bookcases or built-in book shelves would help along this effect. Tinting the side wall the same color as the ceiling to a depth of twenty-seven inches or more and running the wall-paper up to this tinted frieze is an easy method of decreasing the apparent height of a room. In a bedroom, the floral crown effects in wall-papers will accomplish the same result.

Color also plays an important part in redeeming an unsightly interior. North rooms that do not get the direct rays of "Old Sol" can be made sunny and bright by choosing wall coverings of yellow, neutral orange, terra-cotta, old gold, and the rose tints. All of the pumpkin-yellows and warm browns in which yellow predominates will brighten up a cold room. A room that is sunny for the greater part of the day can take a wall-paper of gray neutral blue or green. These are the cool receding colors and the blue and green should only be used in well-lighted interiors, as these two colors absorb the light.

The problem of window openings that are too high can have this difficulty overcome by having window-seats and using a valance and sill-length over-curtains. At low windows one can gain height by having the over-curtains hung in long straight folds coming all the way to the floor. Solid color floor coverings, or those having a simple border design, will make the floor area appear greater than when the eye is attracted by designs placed here and there on a plain background.

In a hall of this size, flooded with light, the dark-figured papers in tapestry effects are not at all out of place

One can immediately reduce the apparent size of a room by placing a small table or other piece of furniture in the center of it, which makes it apparent at once that in small houses and apartments, where the effect of greater space is desired, the furniture should be kept away from the center of the room as far as it is practical to do so.

What had originally been a long, high-ceilinged, formal parlor, in one of the Mansard-roof houses with which we are all familiar, was transformed into a homelike and comfortable living-room by the ingenuity of the amateur decorator in a family that had but recently rented the house. A very limited sum was allowed for redecorating, and it was deemed best to do over only a few of the rooms at first, instead of attempting to

stretch the small appropriation over the entire house. So it was decided to spend the largest amount on the living-room and let brains make up for the lack of dollars.

As this room was on the southwestern side of the house, a green color scheme was used. The ceiling was covered with a sage-green cartridge paper, which was carried down on the side-wall to a depth of thirty-six inches, and the balance of the wall space was covered with the same kind of paper, only of a slightly darker tone of green. The plain molding, placed at the bottom of the frieze, and all of the very ornamental woodwork, was painted a flat dark green. The white marble mantel was also painted the same color.

Two high narrow windows, with a pier mirror between them, were at one end of the room. To reduce the apparent height of these windows, an effect was created of throwing them together and making one wide window. A seat was built into each, the long pier mirror removed, and in its stead plain bookshelves four and a half feet high were built between the windows. The space above was occupied by a plaster bas-relief in deep ivory tones. To combine the whole and make the illusion complete, a box-plaited valance was carried across both windows, as well as the intervening space, and extended a foot beyond the woodwork. This valance covered the brass rod from which hung two curtains, one only being used at each window. These curtains did not really cover the windows, but were hung over the wood trim and the wall for the space of a foot, so as to give added width to the windows. A section of the pier mirror, just the length of the mantel, was framed in a narrow flat molding, painted to match the woodwork, and placed over the mantelpiece. The small rugs were laid the narrow way of the room, and the mahogany furniture was arranged in two groups at either end. The color of the walls and woodwork, the arrangement of the draperies, rugs and furniture, the placing of the mirror over the mantel, all helped to reduce the apparent height of this room and also to give it an appearance of greater width, by creating lines running contrary to the long lines of the floor and ceiling.

COLOR SCHEME FOR A DINING-ROOM

A READER requests a suggestion for a dining-room color scheme. The room faces north, is large, and is lighted by two windows. The woodwork is varnished pine and matches in color the golden oak furniture. There is a chair rail that must not be removed. The carpet is dark blue and terra cotta.

The carpet ties one to blue or terra cotta for the color scheme, but as a large mass of terra cotta is not pleasing with varnished pine, it would be best to have a blue or blue and green scheme. Fortunately there are many beautiful wall-papers in these two colorings. The wall below the chair rail should have a plain surface burlap, book-cloth or silk-fibre, stronger in general tone than the figured paper above. A well-designed paper that will not weary the eye in the blue and soft green may be chosen. A second choice may be considered for the upper walls among the tapestries; many of these have a good deal of wood color that makes them harmonious with golden oak; they also come with touches of terra cotta in the fruit. A tapestry paper is often the most successful choice if articles in the room have seen wear. The medley of neutral shades blends with an old carpet, when a most beautiful paper, chosen only for its color and design, would make the old things look dreary. In our case, the tapestry paper must lean to bluish foliage rather than to green.

Panelling will often apparently reduce the height of rooms where the effect of lower ceilings is desired

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

MARCH PLANS FOR NEXT SUMMER'S GARDEN AND HINTS FOR THIS MONTH'S WORK.

THE mere mention of the month of March conjures up for one the vision of Springtime. Alas, that we have to confess that the poets who sing so pleasantly of the awakening season carry us by their enthusiasm beyond the realm of facts as we encounter them in our climate. We who are patiently awaiting the coming of Spring and the bursting forth of all the earth into buds of the Plum, the Peach, the Quince, the Cherry, and the Apple blossom; we who long to discover the first Snowdrop or the first Crocus, and who look forward to the first gorgeous Tulip or purple Hyacinth, that shall herald the coming of the glorious garden time in earnest; we who wrap ourselves in such expectations are apt to be downcast by the stern realities of sleet and rain and slush, and the favors of Goddess Flora deferred. We are apt then to be angry with the poets, to wish to reorganize the kalendar, or to find a subterfuge for our disappointments in the old adage that gives March's entrance the similitude of that of the Lion or of the Lamb, as the case may be. However, we shall find stirring us into a happier frame of mind that indefinable something that tells us with unerring certainty when Spring is here, despite any of the astronomical observations of the industrially wise to the contrary in point of time.

Spring will soon be with us in earnest, the lovely, delicate Snowdrop its earliest harbinger

SO let us not expect to hasten Nature's bounty, and do not let us become impatient. Instead, let us remember what a lot of things we really have on hand this month to think about in preparing for the season soon to approach. You will wish, for instance, to avoid the Spring rush. There will be a lot of cleaning up that can be done during the thaws that are sure to come this month. If your last year's garden failed by reason of your not being able to obtain a sufficient supply of fertilizing material—perhaps you neglected this—you can arrange now for the supply of stable or barnyard manure your garden will require. If you do not do this in time, Summer may find your garden outrivalled by your more provident neighbor.

OF course, your hardy Roses must be pruned before the latter part of the month—one cannot dream of June gardens, neglect this pruning, and expect the Roses to be all one has dreamed they should be. Grapevines and fruit-trees will need pruning, too, though, of course, the experienced gardener will know that neither bush fruit (berries) nor shrubs that flower early should be pruned at this time. It might prove fatal to their growth.

THE reader of Mr. F. F. Rockwell's very excellent article on hotbeds and coldframes in the February number of AMERICAN HOMES AND GARDENS will probably be prepared by now to try the experiment of introducing a hotbed or coldframe in his garden, if he has never had one before. Of course, the sash already glazed for hotbeds or coldframes may be purchased from manufacturers of greenhouses or ordered through one's seedsman. It is well to remember that by having a hotbed or coldframe, or both, one may steal a march on the season either in the matter of flowers or of vegetables.

AS to the seed to sow in hotbeds this month, one may sow Lettuce, Peas, Cabbage, Cauliflower, Onions, Radishes and Celery, to mention but a few of the vegetables, and as far north as Baltimore those vegetables requiring much soil heat, such as Melons, Cucumbers and Tomatoes, may be started now, early in the month.

THE Asparagus bed and the Rhubarb rows should be put in shape as soon as the weather permits. Nitrate of soda and common salt should be sprinkled upon the top soil at this time, for these plants need this sort of food before Spring comes on.

ANOTHER thing that will keep the amateur gardener from being idle this month is the matter of spraying

trees and shrubs in time, as a protection against the pests that attack them. The garden-maker will do well to study up the matter now and to begin ordering and mixing the insecticides and fungicides he may find his garden in need of.

FOR the garden of any extent, one recommends the purchase of a roller. It will be found useful in many ways. In the first place, it is both a necessity and a convenience in the matter of making paths and in lawn making, aside from its value as an accessory in keeping up a tennis court. Apropos of the matter of lawn making, it will be well for the garden-beginner to watch the lawn for an indication that frost has left the ground, and then to remove any leaves, mulch or litter that has been allowed to rest on the lawn throughout the Winter; otherwise the grass roots will take a premature start, subsequently suffering by this.

PROPAGATING THE CHRISTMAS ROSE

ONE of the readers of AMERICAN HOMES AND GARDENS has written the Editor an interesting letter about the article, "The Christmas Rose," which appeared in the December number of this magazine. The writer tells us that he has found a good stiff soil, into which leaf-mold well decayed has been worked, to be best suited to this plant (*Helleborus niger*). The end of March, he finds, unless the season is a very late one, that it is safe to dig up the roots, trimming off all the very long ends. He then plants these slicings in the soil under protection, and has found that they will send forth new roots below and leaf buds above.

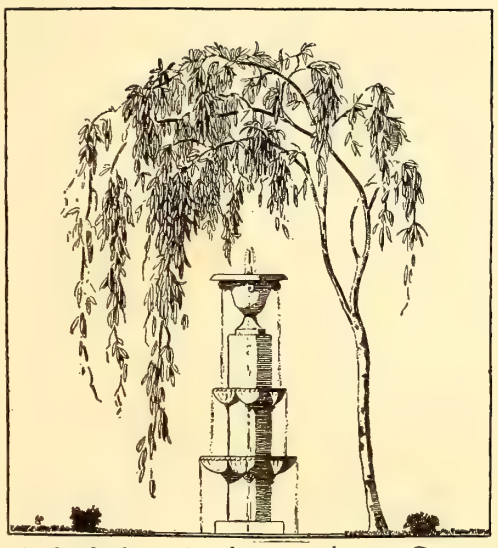
WARDIAN CASES

THE Wardian case should be better known to indoor gardeners, as there are many interesting sorts of plants that one may grow therein which could not otherwise be raised successfully except in a heated greenhouse. Wardian cases are enclosed boxes of glass, and may be procured from any seedsman or through any florist. All sorts of miniature rockeries may be constructed therein, bearing in mind the fact that the soil placed in the case must be perfectly drained and composed of leaf-mold, sand and loam, with bits of charcoal to keep it sweet. Small plants are the proper sort for the Wardian case, and such ferns as the Maidenhair (*Adiatum capillus Veneris, Asplenium trichomanes, Pteris serrulata*) and the Selaginellas

The Yucca is one of the best foliage plants for indoors or outside.

A little pool like this would be a joy in every garden

(*S. grandis, S. Kraussiana, S. umbrosa* and some others) are excellent adjuncts to its plant life.



A bird fountain designed by a German landscape architect for a Bavarian garden. The arrangement of the Weeping Willow called for by the design is especially pleasing

HEIGHT OF PLANTS FOR THE HERBACEOUS BORDER

THE following is a brief list of herbaceous plants for the border, selected with reference to height. The list does not pretend to be inclusive in any sense, but will suggest some of the most satisfactory varieties for the purpose of border planting. *Plants reaching a height of two feet*—Achillea, Antirrhinums, Aquilegia, *Aster Alpinus, Campanula muralis, Delphinium nudicaule, Lobelia cardinalis, Papaver nudicaule, Plumbago Larpentae, Primula Japonica, Ranunculus aconiti-folius, Saxifraga granulata, Trillium grandiflorum* and Veronica. *Plants reaching a height of between two and four feet*—Achillea millifolium roseum, Aconitum, *Anemone Japonica, Aster ericoides, Campanula persicifolia alba plena,* Chrysanthemum, *Geum rivale, Iris Germanica, Lilium Candidum,* Lychnis, Paeony, Phlox, Pyrethrum, Rudbeckia and *Yucca augustifolia. Plants reaching a height of over four feet—Aster Novi-angliae,* Delphinium, Helianthus, *Lilium auratum,* Polygonum, *Rudbeckia maxima* and Solidago.

TERMS USED IN DESCRIBING FERNS

A READER writes to ask for information concerning the technical phrases used in connection with various writings upon the subject of Fern culture, and as this may be a matter of interest to others as well, the following explanations are here set forth: The non-flowering plants are called *Cryptograms,* and Ferns fall within this nomenclature. Those Ferns having creeping stems have the name of *rhizomes* applied to these stems. By *frond* we designate the Fern's leaf, and by *stripes* its stalks. The Fern's seeds are called *spores,* and the tissue (case) covering these spores is called the *indusium.* The term *sori* is applied to the clusters of sporangia.

THE SUNFLOWER

THERE are no lovelier plants in our gardens than the Helianthus, the old-fashioned Sunflower. The plant derives its botanical name from the words *helios,* sun, and *anthos,* a flower, and it was applied to it from the belief that the flowers follow the sun round. Garden beginners are urged to make a more careful study of the Sunflower, which, unfortunately, has been too often shown much neglect.

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

KITCHEN ECONOMY

By Elizabeth Atwood

Photographs by Mary H. Northend and Charlotte Kendall Mooney

"WE SHOULD be more miserly with our time than with our money." So said Queen Christina of Sweden, more than two hundred and fifty years ago. It is a far reach from a queen of a country to a queen of a kitchen, and yet this maxim should mean as much in the kitchen of to-day as it would have meant to that queen of long ago.

Kitchen economy does not mean the care of scraps alone. It means a wise use of time as well as a wise use of materials. How often we see one who can "turn off" more work in an hour than another can in half a day. It is not because the hands work so much faster, but because the one understands how to dove-tail the multitude of various motions, and also to make "her head save her heels" (as my grandmother used to say), while the other does not.

To begin with, we must put a proper valuation upon the kitchen and its relation to the whole house. It is a fancy of mine that the kitchen is to the whole house what the spinal column is to the whole body. To follow this fancy, what would the body be without a good spine? How many of us know spineless people? Also (too well), how many of us know spineless homes?

Now, the average woman who has trouble with her back sets to work to correct that trouble, and science is brought to the rescue. She follows well-laid rules for developing her strength, and nothing is left undone which can help produce a perfect result. Generally, if she is honest in her desire for strength, an excellent result is gained.

It is not so with the backbone of the house. The despised kitchen, which is a good part of every woman's kingdom, is left to suffer, many, many times, in the hands of ignorance, whether that of the mistress or of the maid. How many women make a study of the time it takes to do certain tasks, and, putting these tasks together, proceed to consider how much a maid should be asked to do? If satisfied with such investigation for themselves, how many women proceed to teach a maid how she may do as they have done? This is a large part of kitchen economy, and until our housekeepers become just such investigators and teachers, spineless homes will continue to exist.

We have to eat three times a day, most of us, and someone must prepare the food for our meals and clean the utensils and dishes used three times a day. This is imperative. Why should not the woman of moderate means in a small household recognize the fact, and, instead of leaving such a monumental care entirely to a possibly incompetent maid, thus forever remaining more or less incompetent herself, employ her brains in organizing and systematizing her own kitchen so that it will become a real backbone to the house? I have never been able to understand why so many women who can afford but one servant—not always that—though mistresses of the house, yet remain anything but housewives in anything approaching the true sense of the word.

The day for scouring, kitchen work, cooking and washing dishes, is long past. Girls, wondering what to do with their lives after leaving school, seldom consider going into mother's kitchen to solve this problem. And yet, what greater work could they be doing than training themselves to become the backbone of another home? One must know by positive experience in the mother's home before she can lead and direct another—her own—home successfully; and mother should always be willing to teach and train this beginner for her life's work, always keeping before her this fact,—that to be a true and qualified homemaker is the greatest profession open to a woman. But—is mother qualified? If not, it is high time she realized that she must

The manner in which bread for the morning meal is placed upon the home table is of importance to housewives who wish to have attractive tables

set to work to change the old order of things in her life that may have led to her being careless of the importance of such matters.

There are many small families living on small incomes who are only able to employ help occasionally. These housekeepers must, of necessity, spend much of their time in the kitchen. Meals must be cooked and dishes must be washed regardless of any other work, and, because of this fact, economy of both time and labor must be secured in planning the construction and equipment of the kitchen. The large 16x16 kitchen that used to be the right thing, modern use has proved to be an unwise arrangement. Whatever the size of the kitchen may be, however, one can control the arranging of furniture and tools so that no extra steps need be taken. Each housekeeper must study out this problem for herself, according to her surroundings, but certain rules apply to all. Painted walls and shelves, and a smooth floor, either covered with linoleum or painted, for instance. Linoleum, varnished once or twice a year, makes the best floor of all. The next essential is plenty of light upon your work. I hate sinks in a back corner. A sink should have a window all its own.

Then ventilation should be worked for. There should always be some good method of ventilation in every kitchen. Windows opposite a door, according to construction, is the very best way. There should be a good light over the stove, if possible. If there is no gas jet available, put a bracket lamp, with reflector, where the light can be thrown on the stove. Many steps may be saved right there.

A kitchen table which can be drawn up near the stove will save steps, and neither stove or table should be placed far from the sink. If the table is covered with white oilcloth, have some squares of wood, in which can be placed screw-eyes for hanging them at the side of the table, and always being at hand, they can quickly be placed under a hot pan or kettle.

The most desirable thing in the cupboard line is the cupboard around the wall. With sliding doors of glass, a cupboard of this sort is the perfection of convenience and easy to care for. In many small houses and bungalows there is a tendency to employ open shelves, with a rack behind, which arrangement enables one to see the pans and plates needed. Eternal vigilance will keep these free from dust, and wiping off before using does not take the time it does to get down on your knees to a shut-in cupboard and hunt out your needed article. Small screws can be put in underneath such shelves, and measuring cups, spoons and many other things suspended from them. How many times has one dusted a drawer with flour while hunting hurriedly for a special spoon, even getting cut in the hurry, because knives will get mixed in where they do not belong!

Stock up with good kitchen utensils, and keep them clean! If you have a jar of sal-soda near the sink, and put some into the porcelain or granite dishes when they get stained and you put them to soak, the stain or food which has become stuck to the dish will come off readily without scraping and scouring, which spoils the surface. A bit of soda put into a frying pan, when putting to soak after use, will save much time when the washing time comes.

Steel frying pans are much preferred nowadays, but I think because they heat up so quickly, but the old-fashioned iron spider I can't do without. It holds the heat without burning, and does not need watching every minute. Graniteware kettles have taken the place of the heavy iron kettles, and we older ones all can tell of the joy it is to be rid of the old iron teakettles. We are being helped at every turn; it is for us to make the best use of such helps, and everywhere to bear in mind the economy of steps which means such economy of time, and that in turn affects the whole house.

A Frenchman once said that the greatest menace to American prosperity was not the influx of immigrants, but her garbage pails. As long as they were filled with what would keep a French family going for a day, nothing but hard times could be the result. While this may be a statement somewhat exaggerated, still there is much truth in it. Far too much is thrown away by those who should know better than to waste. Take, for instance, the matter of bread. There are endless ways of using up the scraps—and yet I have seen bread sufficient for several families thrown out as waste on the lift in a New York flat. Bread toasted

TWO ATTRACTIVE WAYS OF SERVING EGGS

By Charlotte Kendall Mooney

Poached Eggs with Celery Sauce.—Poach the desired number of eggs in the usual manner and arrange them on a hot platter. Cook six stalks of celery in one pint of milk until tender. Remove them; thicken the milk with one and one half tablespoons each of butter and flour rubbed together, then add the celery cut in small pieces. Reheat and pour around the eggs, garnishing the dish with celery tops.

Eggs a la Bechamel.—Shell and quarter ten hard-boiled eggs. Have ready one pint of Bechamel sauce made in the following proportions: To each tablespoonful of flour and butter allow one and one half cups of milk, seasoning to taste of salt and pepper, and a small bouquet consisting of two or three sprigs of parsley, a stalk of celery, a bay leaf, a bit of thyme, and one or two cloves. Cook together for fifteen minutes and strain. To this sauce add the eggs, heat thoroughly, and serve with a garnish of fried croutons and parsley.

and cut in dice, bread toasted and made into milk toast, is just so much better for being stale. The smallest scraps are worth saving, shapeless as they may be, for these should be dried and converted into bread crumbs, a jar of which ought to be on every kitchen shelf. Bread crumbs are much better to use than cracker crumbs for everything. Scraps of toast are very good converted into bread crumbs.

If your stove or range has a back shelf, you will save time and always be prepared, if you keep boxes of crackers there, for they are always warm and crisp, ready for use. If you have no shelf to your range, put up a temporary bracket shelf just for this purpose. It will make ample returns.

The refrigerator calls for the attention of every housewife, and some hints may help here. Get a yard of cheese cloth and cut in two. When the ice comes lay one half of the cheese cloth, folded double, in the bottom of the ice-compartment. The next time, remove this piece and place in the other, rinsing the one which has been in use. If you are careful to cover the drain with the cloth, the cloth will hold much, if not all, which would become slime and is so horrid to clean. You will be surprised at the accumulation of dirt and the ease with which it is disposed of. Time is saved if one is careful to wipe off the outside of any dishes holding food before placing in the ice-chest. Never have anything warm put in the ice-chest, for the steam from such dishes creates odors not good.

At least once a week a thorough washing is necessary—walls, ceiling, and doors, as well as the shelves. Keep a skewer, such as the butcher sends, for pushing the cloth into all grooves. Make a suds of ivory soap and plenty of borax; set this away to cool before using. Never use the strong-smelling kind in washing what must be closed at once. Get on your knees to your refrigerator once a day, lest something grows too old for use again, and place a bit of charcoal on each shelf. This will absorb odors, and keep the refrigerator smelling sweet; but no food of penetrating odor should ever be placed inside closed doors.

To my mind the greatest economy of all is the fireless cooker. If you have never used one, don't wait any longer. In the summer they are simply wonderful, and in the winter, although one may be using a coal range, they are helpful. There are many good ones on the market now, but I had great fun making mine myself, and I would not be without it. When cooking with gas, one saves both time and money by its use, which makes possible the meats calling for long cooking, and the awful turnip and cabbage odor is not in evidence when cooked in the fireless cooker. Housewives can put on, or rather in, their dinners after breakfast, go out for the day, and find their dinners ready when they return at night.

Just study your kitchen; you will find it interesting and entertaining, if you take the right spirit into it, The whole house will respond to the extra attention given to the kitchen. I think a man, mere man, appreciates such study in woman more than any study of art or music; and we are all striving to please some one man, to make his home what it should be, a place of comfort and rest. Milton said: "Nothing lovelier can be found in woman than to study household good."

COLD WEATHER HINTS

MANY years ago a carpenter who was at work on our house asked me for a tin dish to put his nails in, and then for the privilege of putting them into my oven. It was bitter cold outside, and he said that by heating the nails he kept his hands from getting numb while working.

On these days, when the wind blows and the weather is so bitter cold, any help that the one doing the washing may get should be found for her. Here is one great help: Half an hour or more before hanging out the clothes (the coldest job any woman ever had) place the clothes-pins in the oven, taking care that they do not scorch. When all is ready, put them into a clothes-pin apron pocket, and you will be surprised to find how warm your hands will keep from repeatedly putting them in the warm pocket to get the pins.

Also, always have the bluing water (the last stage of the washing) as hot as you have water for. The clothes are then warm to handle, no matter how cold the weather.

THE CARE OF FURS

IT IS coming time now to think of placing our furs beyond the reach of moth and buffalo bug. It has been my custom to comb and brush carefully all furs every little while all Winter, and then hang them in the sun. This should be done with extra care when getting ready to shut them up. Although I have a spacious cedar chest, furs and hats with feathers are taken care of separately. In the rush of all the things the housekeeper finds necessary to attend to in the Spring, the matter of caring for furs must not be overlooked.

Paper bags have other uses than cooking, for in paper bags do I store my furs. No matter how well cleaned, moths will find their most destructive way if there is a crack through which they can get in at furs. After cleaning my furs most thoroughly, while the sun heat is still in them, I take my paper bags out into the yard and put my furs in them. I fold the end of the bag over twice and stitch across the fold with the sewing machine, having sprinkled in a little camphor. Now I defy the moths to find an entrance, and I have never failed.

The large fur coats and fur-lined coats are a problem. We cannot all send our coats to cold storage, either from lack of convenience or money, and bags of such prodigious size are not made. But wide wrapping paper can be found, and we can make our own bags. Take about two yards of paper and two yards of unbleached muslin to reinforce it. Fold together with the muslin for lining; fold the edges over and stitch together. On one side stitch loops for hanging by. After sunning, combing and brushing the garment, fold carefully with bits of camphor and lay inside this big bag. With great care, fold and stitch the opening. If bugs cannot get in they cannot do damage, and I have found paper bags to be sure. Do not try to use newspapers, as they dry out and grow brittle.

HOW TO MAKE GOOD LAWNS

(*Continued from page 101*)

as on terraces or embankments, it is easier to secure a lawn by sodding. The best of sod should be bought from a nurseryman, who has sod growing for this purpose, and it should be applied in strips one foot wide and three inches thick. After firming it, cover the area with a light coating of rich loam and broom it in between the crevices, then thoroughly roll it. The edge of a lawn adjoining a walk or hedge should be bordered by such sod strips. In securing fertility, should you have a season for preparation before you make the lawn, sow such cover crops as Crimson Clover, Hairy Vetch, Cow Peas, Soy Beans, or any good leguminous crop. This is the cheapest way of fertilizing and it prevents the possibility of many weed seed. In sowing the seed, great care should be exercised so as to evenly distribute the amount needed. A calm day should be selected, and sow in opposite directions and crosswise, and immediately rake with an iron-toothed implement, and roll. The best season for making a lawn is immediately after the Spring rains, and before the heat of Summer tends to dry out the ground. If it is sown during the rainy season the seed might wash and cause an uneven lawn. For Fall sowing, September is undoubtedly the best month to secure a fairly heavy turf before it is covered with the protecting blanket of snow.

My Farewell Car

By R. E. Olds, Designer

Reo the Fifth—the car I now bring out—is regarded by me as pretty close to finality. Embodied here are the final results of my 25 years of experience. I do not believe that a car materially better will ever be built. In any event, this car marks my limit. So I've called it My Farewell Car.

My 24th Model

This is the twenty-fourth model which I have created in the past 25 years.

They have run from one to six cylinders—from 6 to 60 horsepower.

From the primitive cars of the early days to the most luxurious modern machines.

I have run the whole gamut of automobile experience. I have learned the right and the wrong from tens of thousands of users.

In this Farewell Car, I adopt the size which has come to be standard—the 30 to 35 horsepower, four-cylinder car.

Where It Excels

The chiefest point where this car excels is in excess of care and caution.

The best I have learned in 25 years is the folly of taking chances.

In every steel part the alloy that I use is the best that has been discovered. And all my steel is analyzed to know that it meets my formula.

I test my gears with a crushing machine—not a hammer. I know to exactness what each gear will stand.

I put the magneto to a radical test. The carburetor is doubly heated, for low-grade gasoline.

I use nickel steel axles with Timken roller bearings.

So in every part. The best that any man knows for every part has been adopted here. The margin of safety is always extreme.

I regard it impossible, at any price, to build a car any better.

Center Control, Finish, etc.

Reo the Fifth has a center, cane-handle control. It is our invention, our exclusive feature.

Gear shifting is done by a very slight motion, in one of four directions.

There are no levers, either side or center. Both of the brakes operate by the foot pedals. So the driver climbs out on either side as easily as you climb from the tonneau.

The body finish consists of 17 coats. The upholstering is deep, and of hair-filled genuine leather. The lamps are enameled as per the latest vogue. Even the engine is nickel trimmed.

I have learned by experience that people like stunning appearance.

The wheel base is long—the tonneau is roomy—the wheels are large—the car is over-tired. Every part of the car—of the chassis and the body—is better than you will think necessary. No price could buy anything better.

Price, $1,055

This car—my finest creation—has been priced for the present at $1,055.

This final and radical paring of cost is considered by most men as my greatest achievement.

It has required years of preparation. It has compelled the invention of much automatic machinery. It necessitates making every part in our factory, so no profits go to parts makers.

It requires enormous production, small overhead expense, small selling expense, small profit. It means a standardized car for years to come, with no changes in tools and machinery.

In addition to that, by making only one chassis we are cutting off nearly $200 per car.

Thus Reo the Fifth gives far more for the money than any other car in existence. It gives twice as much as some.

But this price is not fixed. We shall keep it this low just as long as we can. If materials advance even slightly the price must also advance. No price can be fixed for six months ahead without leaving big margin, and we haven't done that. The cost has been pared to the limit.

Catalog Ready

Our new catalog shows the various styles of body. It tells all the materials, gives all specifications. With these facts before you, you can easily compare any other car with this Reo the Fifth.

If you want a new car you should do that. Judge the facts for yourself. Don't pay more than our price for less value. After 25 years spent in this business, here is the best car I can build. And the price is $1,055. Don't you think you should know that car?

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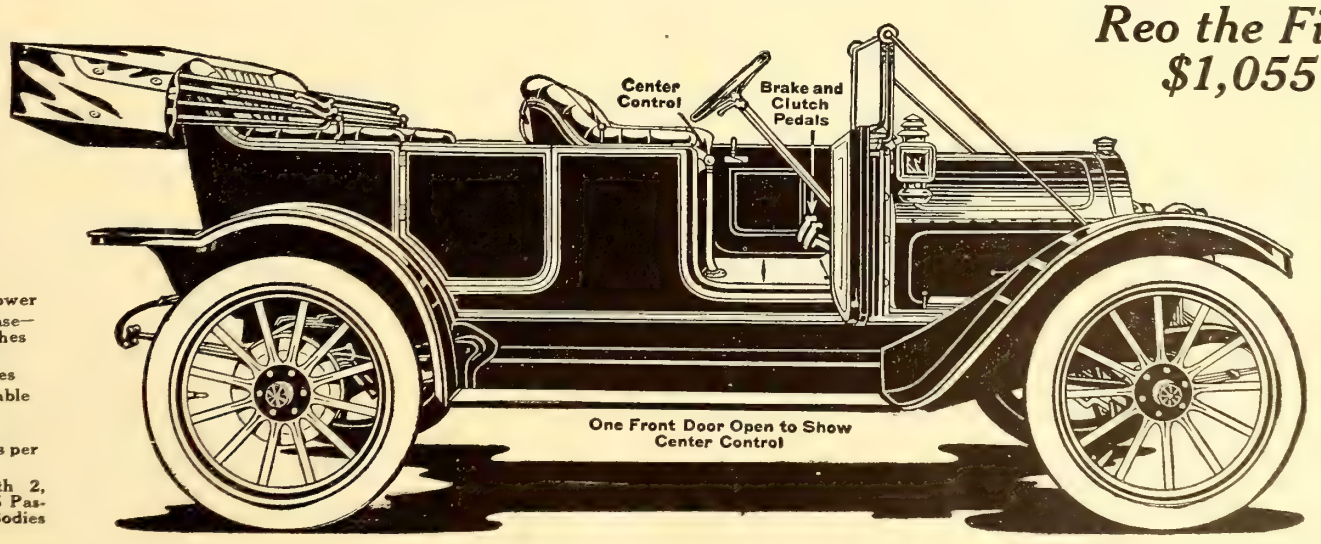
Canadian Factory, St. Catharines, Ontario

Reo the Fifth $1,055



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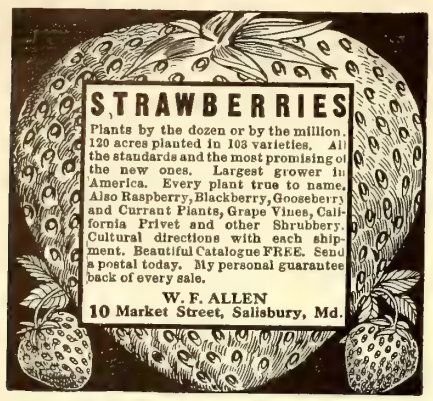

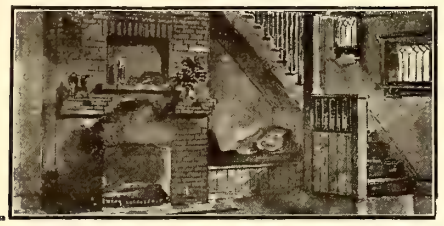

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THE GARDEN OF THE SUMMER ABSENTEE

By IDA D. BENNETT

IN the all-the-year-around home, where the Summers, like the Winters, are passed under the same roof and the same environment surrounds one week in and week out, the summer garden becomes an important factor in the life of the home, and in a beautiful, old-fashioned garden, redolent with the perfume of rose and lily and bosked with shrubbery and banked with flowers, one may well decry the love of change or the deference to fashion or custom that yearly sends one adrift to find in seashore or mountain resort an uncomfortable substitute for one's own fireside.

It is this universal exodus—that begins about the middle of June and continues until the frosts of September—that militates against the creation of a garden, for it hardly seems worth while to plant flowers which must be neglected for months at a time and be found dead or grown up to weeds upon one's return to them in early Fall—a mute and pathetic protest against such fickle affection.

Naturally, one's thoughts of a garden center round those exuberant flowers of the warmer months—the rose and carnation, the heliotrope, verbena and all the brave array of Summer bedders—which will have passed their maximum beauty and succumbed to the first frosts of September ere one returns to enjoy their beauty. And did these flowers of mid-Summer form the garden's story it would, indeed, be of little profit to plan and create a garden that would bloom for others or lie neglected and alone.

Fortunately, the Summer is not all of the garden's story, nor by any means the best. The Spring garden has a charm quite distinct from its Summer successor, and the Fall garden possesses a wealth of bloom and color by no means to be thought lightly of. Moreover, the flowers of the Spring and of the Fall are just those which, once planted, require the minimum of care and may be left for long months at a time to the fostering charge of nature with little, if any, detriment. Such care as they do require must be given them at the very time when it is most convenient and pleasant to work in the garden, so that one gains at one and the same time the promise and the rewards of labor.

The Spring garden will be largely a thing of shrubs and bulbs, but what a variety of color, form and fragrance is possible. While the tints of the flowers of the Spring are in a measure cooler and paler than those of mid-Summer, not even the most gorgeous of the flowers of June can rival the splendor of the tulips which make gay the parterres in May. As a general thing we grow far too few bulbs in our gardens—too few in variety and too few in number; instead of planting tulips and hyacinths by the dozen, with an occasional clump of narcissus and a few crocus scattered about the lawns, we should plant them by the hundreds or thousands, in long continuous rows or in solid beds, giving the space between them to the growing of some of the less robust annuals.

In the hardy garden, with its formal beds, the planting of hyacinths, tulips, crocus and the like may be made along the edges of the bed, where they will not be missed when their day is passed, and so will not, necessarily, have to be lifted

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RUSTIC WORK

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to make room for other occupants of the beds.

But these are not all the early Spring bulbs which may be depended upon for early flowers, though of the most dependable. Winter aconite is a bright and cheerful herald of the Spring, sending up a whorl of green leaves enclosing a single buttercup-like flower, about the time of the blooming of the crocus. A few days later the scillas appear, holding their deep blue bells at half mast, rarely looking the sun in the face; but so charming are they and so finely do they group with the white of the crocus that they should be combined with them whenever possible.

Many of the early Spring bulbs are of use simply as bedders, but the majority are available for cut flowers and are not surpassed by anything the Summer has to offer. Tulips, narcissi, daffodils, coral lilies and candidums have as great decorative value indoors as out, and when grown among shrubbery and hardy perennials may be more freely used than when grown in solid beds, where any considerable number may not be removed without leaving an undesirable vacancy.

Then we have the splendid array of Spring blooming shrubs which are both ornamental in the garden and useful as cut flowers. One of the first of the hardy shrubs to bloom is the *deutzia gracillima,* with its feathery-white flowers; this is especially beautiful when planted in close proximity to the pink *lychnis,* with which it combines exquisitely. The lilacs, syringeas, *weigelias, the chionanthus* (which in some sections blooms in late May or early June), the snowballs, and English and German iris, bleeding hearts, and the creeping phlox *subulata,* which in May carpets the ground with a sheet of bloom, are all lovely and desirable denizens of the Spring and early Summer garden, that, once planted, will grow in size and beauty from year to year.

Somewhat later in bloom than the foregoing is the Peony, which blossoms about the middle of June and continues in bloom for a long time. With the coming of Fall, the gold and crimson of the maple glows again in the golden rod and the hardy chrysanthemums; the late asters are imperial in robes of purple and of red. In sheltered nooks the *anterrhinums* hold aloft spikes of richest velvet-white and crimson and of wine, pinks and spikes of flame, and yellow fire are defying the frost of Autumn long after September has gone and October is waning toward November's chill. The salvias, in sheltered nooks, still are brilliant with color, each branch and twig bursting into fresh bloom, as though the Summer had but just begun, for this flower is a persistent and continuous bloomer and only ceases to bloom when cut by severe frost.

The candy-tuft will continue to give an abundance of flowers long after severe frosts have cut most plants to the ground, and in favorable seasons will be found in bloom in November. *Physostegias* which have had the seed pods removed will give a crop of late Fall flowers, as will also the aconites, *delphiniums* and *lobelias;* but it is to the anemones and the hardy chrysanthemums that one must look for the greatest splendor of the Fall garden.

The anemones come into bloom in September, and if slightly protected on frosty nights may be had in bloom until well into November, as they continue to pro-

and thousands of others equally attractive owe more than half their charm to

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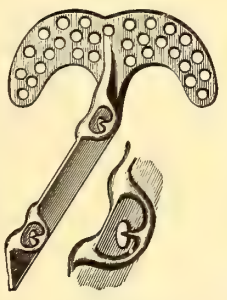

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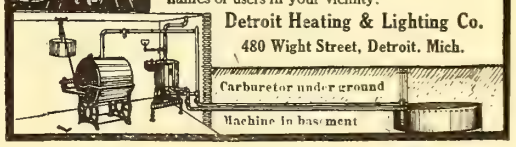

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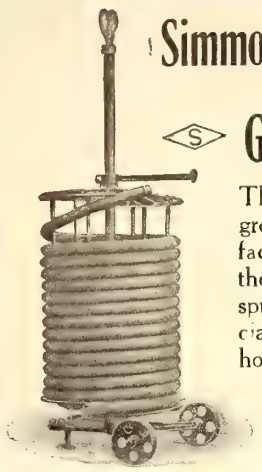

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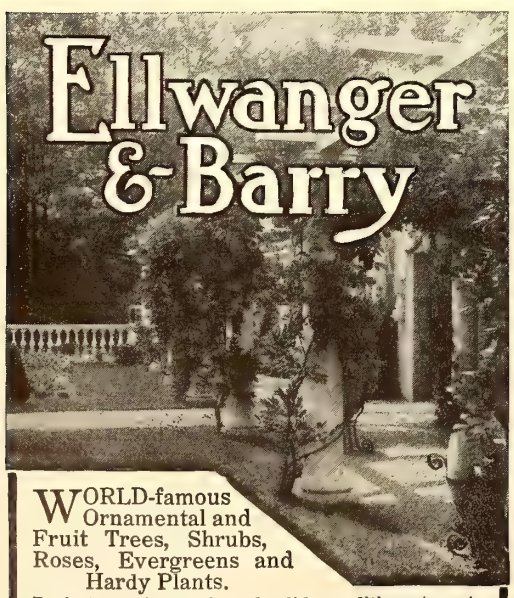

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duce buds until cut down by severe frost. They are an entirely hardy class of plants and rival in beauty anything which the Summer garden has to offer. The best-known form of the anemone is the semi-double variety—Whirlwind. This is a very beautiful flower, about two inches in diameter, with a yellow center closely resembling that of the Cherokee rose. The blossoms are born on long, slender stems, and are exceedingly useful and effective as cut flowers. The colors range from pure white of the Whirlwind and Lord Ardilaun — the finest double white, through such delicate silvery-rose shades as Queen Charlotte and *Elegantissiman,* to the deeper rose shades of Rose D'Autumne and the deep, rich coloring of Prince Henry. They are very easily grown, but require some protection in Winter. They increase rapidly, and a few plants left undisturbed soon form prolific colonies which produce an abundance of flowers. They root from *rhizomes,* from each joint of which new plants spring, so that they are always appearing unexpectedly at short distances from the parent plant.

Still more enduring and frost defying, the *tritomas* rival in splendor all other flowers of the Autumn garden. Their spikes of flame are little affected by even the killing frosts of late October, and are one of the most striking features of the garden at this time. They do well in sun or in shade, coming into bloom a few days later in partial shade, but blooming none the less surely. They are not entirely hardy and must be wintered in the cellar; but as this operation may be left until into November and they are one of the earliest plants which may be planted out in the Spring, their season of rest in the cellar is comparatively brief. Few bedding plants increase as rapidly as do the *tritomas,* and a dozen roots from the florist will make as many strong clumps the second year. They are especially effective planted along the outer edge of beds or hedges of ornamental grasses and bamboos, or along artificial ponds or running streams, having in this position the same decorative value as the cardinal flowers with which our streams and sedgy borders are brightened in August. The *tritomas* much excel in brilliancy the cardinal flower, however, having the tone of melted iron at a red heat, just before it passes to white, and on bright days seem fairly to radiate heat.

Sharing the autumnal honors with the *tritomas,* the hardy chrysanthemums are much in evidence. These flowers have the advantage of being entirely hardy, and may be left in the ground from year to year, growing into fine clumps in a season or two, as they die down to the ground in late Fall and spring up anew each Spring, each root sending up many new shoots, as do the more tender greenhouse chrysanthemums.

So little are they affected by frost and cold that I have often seen them peeping forth from a heavy covering of snow and emerging unscathed from an enveloping casing of ice under the thawing influence of the sun. They do especially well if planted in a sunny position, as on the south side of a building which holds the sun's heat late in the day and protects from cold winds at night. In such a position they may often be had in bloom for Thanksgiving day, and, with the late pansies, furnish a rich color scheme for the decoration of the rooms.

The colors range through all the shades of yellow, of crimson and of bronze, both

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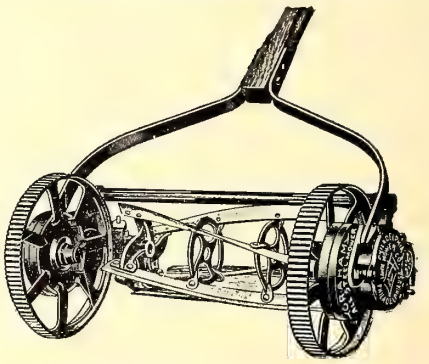

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strong, effective shades and the more delicate tints occuring. Many of these group effectively with the hardy asters, especially if the taller growing varieties of these are used, the planting being made in the rear of the chrysanthemums. The hardy asters have small single flowers, which are produced in large sprays which quite cover the plants, giving them an especially light and feathery appearance, which contrasts charmingly with the stronger tones and more robust forms of the chrysanthemums.

The chrysanthemum family includes not only the pompon variety, but also such single forms as the Moonpenny daisies and the Shasta daisies. Many of these latter are very effective, especially such varieties as the Improved Shasta daisy and *Maximum Robisoni,* both of which may be readily raised from seed.

DOG FANCYING IN AMERICA

By T. C. TURNER

THE canine world is not exempt from the peculiarities which are common to the world in general. It has to-day, and always has had, its fads and fancies. New breeds come into vogue year by year, some times to stay and flourish, and at other times merely to pacify the constant desire for something fresh, and then when they have served their purpose, gradually to become a thing of the past. And so to-day, you can say of the dog, as we do of most things, that such and such a breed is fashionable. Time was, and not so many years ago, when the Airedale, Pomeranian, Chow Chow, Griffon Bruxellois, West Highland Terrier, and the Pekingese had not graced the benches of even our best shows. To-day, with the exception of the Griffon Bruxellois, the other breeds may be classed among our most popular fancies. Particularly is this the case with regard to the Pomeranian and the Pekingese, which seem now to be, if one may say so, at high water mark, if one can judge from their present popularity in England, and one may say with safety that England does set the fashion in all matters concerning the dog. An English dog journal, for instance, contains usually sixty-four pages, varying slightly according to the heavy or light show season. Of the sixty-four pages of the issue before the writer, eighteen pages, or fifty-four columns, are taken up by what is known as classified advertising, which means short advertisements without any display. To give an idea of the small space occupied for each of these advertisements, there are in the fifty-four columns no less than one thousand, four hundred and fifty-eight advertisements. In addition to this, many pages are given over to the large display advertisements, and the remainder to reading matter. As the old saying has it, "straws indicate which way the wind blows." So we may readily follow the fashions by seeing how much publicity the producer is giving to the article he has for sale. It is for this reason interesting to find that Pomeranians head the list with one hundred and seventy-four advertisements. They are followed by that old-reliable breed which has always held its own, the English Bull Dog, with one hundred and forty-five. Next in order we find another long-time popular breed, the Fox Terrier, one hundred and eight. And then follows one of our latest arrivals, Pekingese, with ninety-three. Scottish Terriers of both varieties, eighty-eight. Airedales, eighty. Collies and Spaniels with sixty-one each. And our little old-fashioned

Vitralite
The Long-Life WHITE ENAMEL

YOU can secure nothing more beautiful in your home than the purity and richness of an intense white enamel finish. See that Vitralite, "The Long-Life White Enamel," is used in your home. Then the color will be white and the finish permanent years after. Vitralite does not yellow nor crack. Goes on easily and dries hard with a smooth, porcelain-like gloss, without a sign of where the brush touched it. Can be rubbed to a dull finish if desired. Tell your architect or decorator you want *Vitralite* used for all *white* effects, inside or outside. It's water-proof. Can be tinted to any shade.

Send for Free Vitralite Booklet and Sample Panel

finished with Vitralite. Judge it for yourself. **"Decorative Interior Finishing"** is another book you need when you build or decorate. Its color-scheme suggestions will prove of value to you. Be sure to send for it.

The floor-finishing problem is quickly solved. "61" Floor Varnish is mar-proof, heel-proof, water-proof. It withstands heavy wear and never cracks. Ask for our **Free Sample Panel** finished with "61" and test it with your hammer or your heel—you'll be convinced. **"The Finished Floor"** will help in floor finishing and care. Ask for it.

If your dealer can not supply "P & L" Varnishes, write us at 119 Tonawanda Street, Buffalo, N. Y.; in Canada, 63 Courtwright St., Bridgeburg, Ontario.

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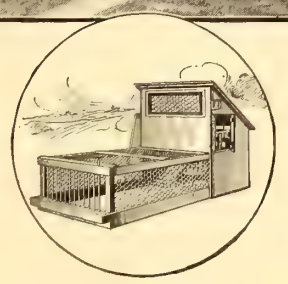
PRATT & LAMBERT VARNISHES

American Factories New York Buffalo Chicago Bridgeburg Canada — Established 63 Years — Foreign Factories London Paris Hamburg



A Poultry House for 12 laying Hens
Complete with Nests, Fountain, Feed Hopper, Yard, etc. The most up-to-date accommodations and will give the best results. Price, $20.00.

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COTTAGES - GARAGES - POULTRY HOUSES

BETTER and handsomer than your carpenter will build and at much less cost and bother. Sections fit together exactly. Easily erected, yet as durable and rigid as a permanent building.

We make PORTABLE buildings for every purpose—Cottages, Sun Parlors, Garages, Poultry Houses, Children's Play Houses, Gardener's Tool Houses, Schoolhouses, Churches, Stores, etc.

Write us what you are interested in—if a Cottage, how many rooms. If a Garage, the over-all length of your car and how many cars. If a Poultry House, how many fowl you wish to accommodate. We can then send you printed matter or catalog illustrating goods that will answer your requirements.

Write us to-day for catalog H.

E. F. HODGSON CO., 116 Washington St., Boston, Mass.

It's High Time You Got Your Heads Together And Selected Your Boddington Quality Seeds

PLAN and plant (on paper) your garden **now**. It doubles gardening joys and makes surer gardening results. Send promptly for **Boddington's Garden Guide** and browse through it and make your plans and order your seeds. You will find this Guide so much more than a mere seed catalog that you will put it in a safe place for ready reference all through the season. In other words, it's a real garden guide. Order your seeds early so you can plant them early. Here are three special offers—some one of which you will surely want.

$5,000 Prize Sweet Pea Quartet—

Paradise Carmine—clear, lovely carmine, waved
Constance Oliver—delicate pink, suffused with cream, waved.
Arthur Unwin—rose, shaded with cream, waved.
Tom Bolton—dark maroon, waved.
1 packet of the above four prize winners, postpaid, for 35 cents.

Six Variety Lot—

Pansy—Boddington's Challenge—value 25c. per package
Aster—Noventy Single Southcote Beauty ——— value 25c. per package
Larkspur—Boddington's Scarlet Defiance ——— value 25c. per package
Zinnia — Boddington's Dwarf Double ——— value 10c. per package
Mignonette — Large, sweet scented ——— value 5c. per package
Nigella—Miss Jekyll ——— value 10c. per package

Value $1.00

Special price for lot—postpaid—50c.

A quarter of a pound of gigantic Orchid Flowering mixed Sweet Peas for 25c.

This quarter of a pound of Sweet Peas (mailed free), contains the finest mixture of the Spencer varieties ever sent out by a seed house. The range of color is from pure white to darkest crimson, and all intermediate shades. Our sales last year were nearly 3,000 packages.

We will send you the three lots, postpaid, for $1.00.

Grow Boddington's Quality Giant Pansies this year. They are sturdy free bloomers in a riot of unusual color combinations.

Boddington's Seeds

ARTHUR T. BODDINGTON, 326 W. 14th St., N. Y.

friend, the Yorkshire Terrier, with fifty-six. The remainder are made up of thirty-five other well-known breeds.

Again, an English newspaper recently contained the following paragraph: "The entry for Fulham show is the magnificent one of nineteen hundred and thirty-four, of which Pekingese are three hundred and sixty-three; Pomeranians, two hundred and thirty-three, and Fox Terriers, one hundred and eighty." Fulham is one of London's suburbs, and can in no way be considered one of England's leading shows, nor is it a specialty show, although one of the many good exhibitions of the year. Therefore the fact is suggested that although we are showing a rapid increase in dog fanciers, we would have to take many long strides before we can compete in enthusiasm with our cousins across the water, at least in the number of our opportunities to bring our pets to the public notice. The writer finds on glancing over the show fixtures in various parts of England during a single month, that of December, for example, that there are no less than forty-eight shows in England. There are there few owners of good dogs that do not have the chance to compare the value of their own animals with those of others in open competition, and, after all, there is no schooling for the dog fancier to compare with open competition. He learns more from attending good shows, and watching and studying methods and good judges, than from a shelf of books. One can look back with pride on the growth of the interest in dogs in this country during the past ten years, and I always feel that when the "dog fever" really takes its hold here, which it surely will do, we shall, in the matter of dogs, as we have in most things, then come to hold our own with all comers, and one hopes to see the day when we shall find American kennel literature as indicative of our progress in this pursuit as the English dog journals are of English interest in kennel matters.

EFFECT OF CHEWING UPON CHILDREN'S TEETH

INVESTIGATIONS on the children in the town of Kötzling in Bavaria showed that of those who eat hard bread the percentage with bad teeth was 6.9; of those who eat both hard and soft bread, 8.2; of those eating only soft bread, 10.5. In the town of Ihringen (Baden) the percentages before and after the introduction of soft bread were as follows: In 1894, when only hard bread was eaten, 12.4 per cent; in 1897, just after soft bread had been introduced, 12.9 per cent; and in 1901, where most of the bread consumed was soft, 20.9 per cent.

TRIPOLI PROVERBS

THE Arabs are noted for their trite proverbs, and those living in Tripoli and its vicinity have many to which Europeans are introduced, the following being characteristic ones:

"You cannot," says one of the proverbs, "escape your fate, even on a horse."

"Whoever," says another, "has maize will soon find one who will lend him flour."

"If a dog has to be beaten," says a third, with a familiar though perhaps more elegant ring, "there will be no lack of sticks."

A fourth proverb points out that "Whoever is seeking pearls must go to the depths of the ocean."

Yet another shrewdly remarks that "Even a soothsayer cannot foretell his own fate."

Never Warp nor Split

Here, Mr. Builder, is a shingle that "fills the bill." 8 x 12¾ in.—wind-tight—rain-proof—frost-defying—fire-resisting—never needs paint and looks as good as best quarry slate.
Twenty years after laying

Reynolds Flexible Asphalt Slate Shingles

you'll find them still serviceable, because they never warp, split nor rot. We can show many recommendations from prominent architects who specify these shingles for fine houses. If you want the last and best word in guaranteed roofing—something that gives *real satisfaction* at moderate cost—investigate Reynolds' Asphalt Shingles—they've had a 10-years' test. Beware of imitations. Booklet free. Also high grade granite surfaced roofing in rolls.

H. M. Reynolds Asphalt Shingle Co.
Original Manufacturer

174 Oakland Avenue **Grand Rapids, Mich.**

Established 1868

HESS MEDICINE SANITARY CABINET **LOCKER**

The Only Modern, Sanitary STEEL Medicine Cabinet

or locker finished in snow-white, baked everlasting enamel, inside and out. Beautiful beveled mirror door. Nickel plate brass trimmings. Steel or glass shelves.

Costs Less Than Wood

Never warps, shrinks, nor swells. Dust and vermin proof, easily cleaned.

Should Be In Every Bath Room

Four styles—four sizes. To recess in wall or to hang outside. Send for illustrated circular.

The Recessed Steel Medicine Cabinet

HESS, 926 Tacoma Building, Chicago
Makers of Steel Furnaces.—Free Booklet.

Kelsey's Hardy American Plants and Carolina Mountain Flowers

The Queen of Hardy Orchids
Cypripedium reginae (spectabile)

The most exquisite and lasting material for Landscape, wild or Formal Gardens.

We have the largest collection of rare Native Plants in existence. Rhododendrons, Azaleas, Leucothoes, Ferns, Bulbs and other specialties for Woods Planting, Borders, Shady Spots, Rockeries and Water Gardens.

These dainty things are easily grown, if you do it right. A beautiful catalog (free) gives expert information.

HIGHLANDS NURSERY, HARLAN P. KELSEY
3,800 ft. elevation in Carolina Mountains **Salem,**
SALEM NURSERIES **Mass.**

WIZARD BRAND ONE BARREL EQUALS 2 WAGON LOADS STABLE MANURE

SHEEP MANURE

Dried and pulverized. No waste and no weeds Best fertilizer for lawns—gardens—trees—shrubs—vegetables and fruit.

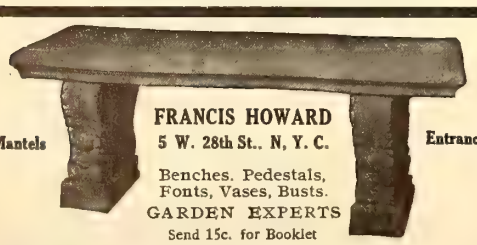
$4.00 Large barrel, freight prepaid East of Missouri River—Cash with order. Write for interesting booklet and quantity prices.

THE PULVERIZED MANURE CO.
21 Union Stock Yards **Chicago, Ill.**

SILENT WAVERLEY LIMOUSINE-FIVE

Ample room for five adults—full view ahead for the driver. Most convenient and luxurious of town and suburban cars at half the gas car's upkeep cost. Beautiful art catalog shows all models.

THE WAVERLEY COMPANY
Factory and Home Office: 212 South East Street Indianapolis, Ind.



Mantels **FRANCIS HOWARD** Entrances
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Benches. Pedestals, Fonts, Vases, Busts.
GARDEN EXPERTS
Send 15c. for Booklet

HOW TO RAISE TOMATOES IN THE HOME GARDEN

By CHARLES K. FARRINGTON

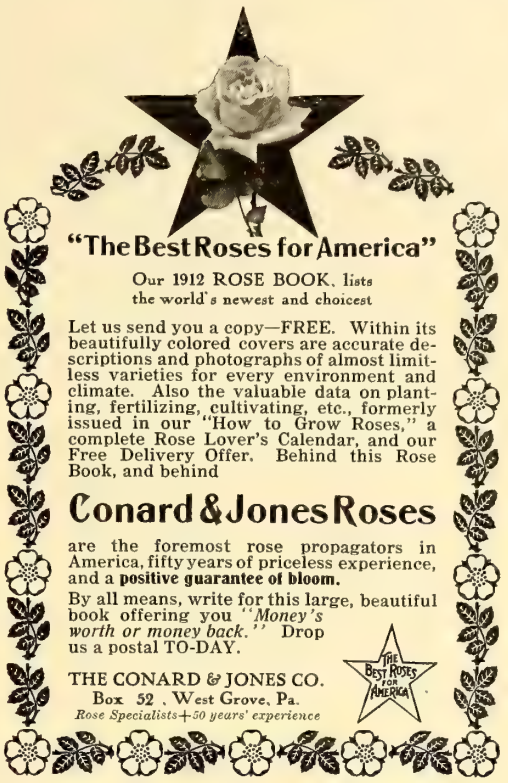
ONE of the most productive, and also one of the easiest crops for the amateur gardener to raise is the tomato. For the small country or city garden, few, if any other vegetables will be so profitable to grow. Strange to say many people do not obtain the best results when raising tomatoes. This is astonishing when one considers that to do so requires little or no expert knowledge. The writer has found that what is not known is how to prevent decay; also how to prevent the fruit ripening too fast; and again, the best sized tomato to raise. He has experimented for the past twelve years, and now always secures a good crop no matter what the season may be. By this I do not mean to say I do not obtain more tomatoes some years than others, but I always have a sufficient number for our household from two dozen plants. For the average family from twenty-four to thirty plants will be found sufficient if the following methods of raising them are followed. I will describe first how the seeds are sown, and then take up each detail in order.

THE PLANTS

Always raise your own plants. An exception to this rule there may be, if you live near a seedsman who sells plants raised from his own seeds. But the average plants sold throughout the country do not produce the fruit one can obtain if he buys his own seeds from a reliable dealer, and raises his own plants. Plant the seeds in good earth in a shallow box, and place the box in a sunny window in a warm room. The kitchen is a good room until the plants are about one inch high. Then keep in a room where the temperature averages sixty degrees, and on pleasant days give as much air as possible. If you can keep them out of doors under glass, so much the better. It is important to see that they do not grow too fast. If kept in a warm room they will do so. It is not the *size* of the plant, but the *age* of it that determines when it will bear fruit. This was explained to me by an old and very successful market gardener who said, "Never mind the size of the plant if you wish early fruit. Be sure that it is old. Plant (in the vicinity of New York), the middle of February." I have followed this advice for the past eight years with the best success, and always obtain early fruit. Do not buy seeds advertised to produce the exceptionally large varieties. Such tomatoes are apt to be misshapen and the skin is also likely to be wrinkled. A tomato of the medium size will prove the most profitable to raise.

SETTING OUT THE PLANTS IN THE GARDEN

Never allow the tomato plant to run along the ground. Remember that it will climb if trained up a support, and so it is really a vine. In certain parts of California where the climate permits it to live for several years, it often attains large proportions, astonishing the easterner, who always thinks of it as a small plant which runs along the ground. Some people make a small support from a barrel hoop and three stakes to hold the hoop, but such a device (or others similar to it), cannot compare with the pole method. Procure straight lima bean poles of about eight or ten feet in length and set them in the ground in rows, the rows to be four feet apart and the poles three feet apart in the rows. Plant one tomato at the base of each pole, as close to it as possible. As the top of it grows upwards cut off every side shoot and allow only the single



A COZY FIREPLACE
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Send for This FREE BOOKLET Telling How to Get and Install Any Design

The fireplace is the heart of the home. No house is really a home without its cheery blaze on winter evenings. If you are building or thinking of remodeling, you owe it to yourself to send for our beautiful booklet, "Home and the Fireplace." It tells all about **Colonial** Fireplaces—the only real advance in fireplace construction in the last century—all about the **Colonial** Plan, which makes obtaining a fireplace as simple as ordering a picture. It contains beautiful illustrations of **Colonial** designs, and tells how you can have a special design made free of cost. **Colonial** Fireplaces are adapted to any fuel. They radiate a full warmth all over the room. No inconvenience—no dirt—absolutely **all** smoke goes up the chimney. The only up-to-date fireplace. Recommended by leading architects. **You need this book—write today**—just send us your name and address—but we suggest you write at once. Just drop us a line right now. (16a)

COLONIAL FIREPLACE CO., 1661 W. 12th St., CHICAGO

A Strange Catastrophe

THIS tree had stood in City Hall Park, New York, for nearly a hundred years. It showed no signs of decay. One day while the park was crowded with persons hurrying to their homes all unconscious of danger, with no apparent cause and without warning it fell and injured a score of persons—three seriously.

Just as sudden and unexpected are most of the accidents which occur daily. No mind can foresee them. No amount of caution can prevent them.

Amid such unseen dangers the only sensible thing is to carry a policy of accident insurance. Such a policy provides for the cost of injury by loss of time and in case of death takes care of the family. You have escaped the accidents of yesterday. To-morrow is yet to come. To-day is the time to act.

We paid last year 15,719 personal accident claims with benefits amounting to $1,713,046.

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Please send me particulars regarding ACCIDENT INSURANCE.

Occupation_____ Name_____

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Hotel Chamberlin is located right in the Centre or Military and Naval Activities, and in the Midst of Country replete with Historic Surroundings and Associations.

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The Chamberlin is the Social Centre for the Army and the Navy. Every Social Function is brightened by the Presence of Army and Navy Officers.—Plenty of Gaiety and Life—Dance Programs always filled.—A Spice and a Dash to social Life that takes it away from the Commonplace.

Every attraction is yours to enjoy to the full at this big, luxurious, yet intimately homelike Resort.

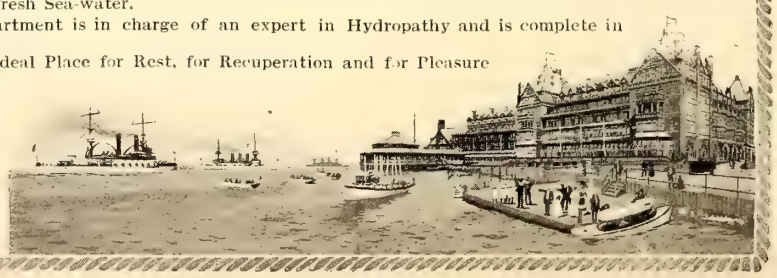
The Sea-pool is the most magnificent indoor bathing Pool in America, radiant with Sunlight, and supplied with ever-changing, Pure, Fresh Sea-water.

The Medical Bath Department is in charge of an expert in Hydropathy and is complete in every detail.

The Chamberlin is an ideal Place for Rest, for Recuperation and for Pleasure

For further information and interesting illustrated booklets, apply at any Tourist Bureau or Transportation Office or address me, personally.

GEO. F. ADAMS, Mgr.,
Fortress Monroe, Va.
New York Office, 1122 Broadway



stem to run up the pole. About every ten inches tie the plant loosely to the pole. I find the best material to use for this is old muslin torn up into strips about half an inch wide. Tie the strip tightly to the pole, and then make a loop with the ends around the plant. This will support it without cutting or bruising. My plants always grow up far above my head, and I have to stand on a box to tie the uppermost parts.

HOW TO CONTROL THE RIPENING OF THE FRUIT

The whole secret of success in controlling the ripening of the fruit, consists in trimming the plant itself. I have already mentioned that every side shoot must be cut off. When the green tomatoes begin to turn white, cut off all leaves which shade them. Of course those at the bottom of the plant will turn white first. Simply cut off the leaves as fast as tomatoes are needed. If they ripen too fast, stop trimming. This method allows sunlight to fall directly upon the fruit, and insures thoroughly ripened tomatoes. Many of those you buy are not so ripened, but have been picked from vines on the ground. There is the greatest difference in the taste of such fruit from those ripened on a vine fastened to a pole. It is interesting to see tomato vines trained up in this manner about the first week in September. At the bottom of the pole only the stem of the plant is left; all the leaves and tomatoes having been removed. About half way up the pole clusters of tomatoes are red or turning so. Above them are green ones, and at the extreme top, small ones are just beginning to form. By the method just explained the whole matter of output is in the grower's hands, and no waste need occur. I gather ripe tomatoes, when the vines are not touched by frost, until the third week in October. With the vines on low supports or on the ground this is practically impossible. The writer finds it always advisable to plant a row of early corn on each side of the tomato space.

The corn may be gathered and the stalks removed before many of the tomatoes ripen, and an abundance of sunlight and air is thus secured. This plan is especially desirable for small gardens where space is at a premium.

DOES THIS METHOD REDUCE THE OUTPUT?

Some readers may ask if this method does not reduce the number of tomatoes that the plants would ordinarily yield. The writer's experience has been to the contrary. He not only obtains a much larger crop, but the tomatoes are much finer in quality. Of course none are lost by rot, which is often the case where the fruit touches the earth, when the vines run on the ground. When I first tried the method, I was somewhat skeptical as to the results I would obtain, and therefore only planted half of my plants on the poles. The balance I left as usual on the ground. But one season convinced me that the pole method was far superior. The labor necessary to trim the plants and train them up the poles is very small when one considers the excellent results which follow.

If it is so desired the entire vine and the tomatoes upon it may be taken from each pole just before a killing frost, and they may be stored in a cool dark place in the house. The fruit upon them will gradually ripen, giving ripe tomatoes until January. This is in many respects a simpler method than wrapping each tomato in paper and has given good results; the fruit seeming to retain its flavor better when allowed to ripen on the vine.

NEW BOOKS

THE DREADNAUGHT BOYS ON BATTLE PRACTICE. By Captain Wilbur Lawton. New York: Hurst & Co., 1911. 12mo.; 305 pp.; illustrated. Price, 50 cents.

Life aboard a modern battleship, even in "the piping times of peace," has in it suggestion enough of excitement to fire the patriotism and set the blood simmering. When traitors enlist, and a foreign government attempts to learn through them the secret of a new explosive, it is evident that our two boy heroes, Ned and Herc, have their work cut out in the circumventing of their country's foes. The features of the modern American war vessel are sketched with a convincing pen, and the routine of sea life, the working of the big guns, and the incidents of target practice form the background for a series of thrilling adventures culminating in a "flare-back" that imperils many lives during the trial of the Varian gun and its marvelous new explosive.

A GUIDE TO GREAT CITIES: WESTERN EUROPE. By Esther Singleton. New York: The Baker & Taylor Company, 1911. 12mo.; 295 pp.; 16 illustrations. Price, $1.25 net.

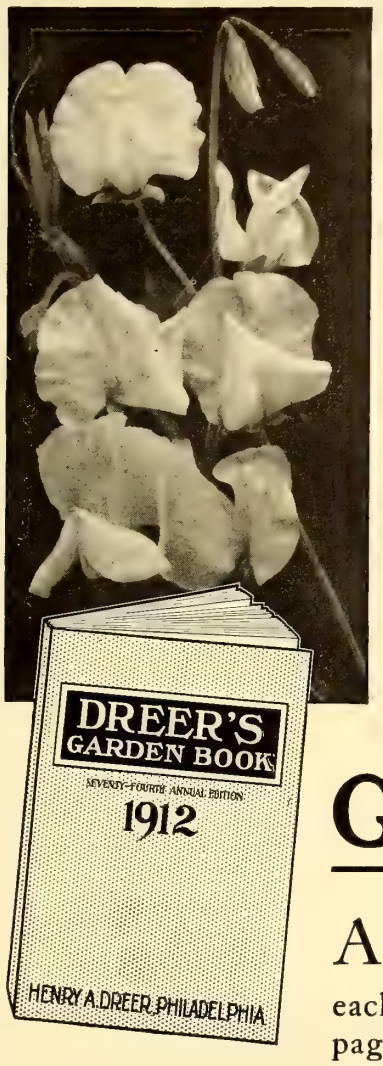
Behind the crumbling stones of Old World cities lurks a soul which the hurried and worried tourist seldom more than glimpses. Yet only in the light of the past can we properly interpret the present. It is toward such an adequate and satisfying interpretation that Miss Singleton gently leads the willing traveler. Sixteen of the most famous cities of France, Spain and Portugal are presented in pictures and in historical and descriptive narration, and although the style is of necessity condensed, the selection of material shows good judgment, a sense of proportion and, in the manner of its conveyance to the reader, somewhat more of charm than the dry tabulations of the average guidebook.

BIRD FLIGHT AS THE BASIS OF AVIATION. By Otto Lilienthal. New York: Longmans, Green & Co., 1911. 142 pp.; 94 illustrations and 8 lithographed plates.

To review Otto Lilienthal's classic book, which for twenty years has served as the basis of experiment on the part of many inventors, is quite unnecessary. That work has already taken its place as a literary monument to its author. Only too long has it been inaccessible to English readers, for which reason this translation from the second edition is to be welcomed. Although time and the experience of aviators have perhaps disproved some of the great Otto Lilienthal's contentions, in the main the work still stands as a safe, sane, and clear exposition of the principles that underlie dynamic flight. Mr. Lilienthal's brother Gustav supplies an eloquently-worded preface in which he points out the debt of the modern aviator to the early gliding experiments made at Rhinow.

A ROMAN PILGRIMAGE. By R. Ellis Roberts. New York: Frederick A. Stokes Company. Cloth; 16mo.; illustrated; 274 pp.

Mr. Roberts' volume is a thoroughly entertaining and sympathetic discourse upon his subject, attractively illustrated in color by William Pascoe, who, however, seems more intent upon depicting the Pope's Rome than the illustrator's, a virtue perhaps in the present instance, where the excellent illustrations are in half-tone.



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Beginning a garden---flower or vegetable---even for the most inexperienced, is rendered a delight if guided by

DREER'S GARDEN BOOK

A COMPREHENSIVE work of 288 pages, with splendid photo reproductions on each page, beautifully illustrated with 4 color pages and 6 duotone plates.

Declared by gardening experts to be the most complete catalogue of its kind published.

Our collection of dependable novelties—flowers that will make your garden gay from spring until frost—vegetables that will linger in your memory long after they are eaten.

Easy Instructions for Growing Almost Every Flower and Vegetable

EVERYTHING that can interest the flower enthusiast—the farmer, the trucker, the home gardener—is treated in this Dreer's Garden Book. Describes more than 1,200 varieties of flower seeds, including many new ones offered exclusively by us after thorough test at our trial grounds.

Offers more than 2,000 kinds of plants. Tells in simple, concise English, all about 600 varieties of vegetables.

New Hardy Plants—the best and latest Larkspur, Iris, Phloxes, Pæonies—New Hardy Shrubs and Hardy Climbers. A complete offering of the World's Best Roses—strong, two-year-old plants that will give a full crop of flowers this season.

Among the American and European novelties this year, are the Splendid Cardinal Climber, Asters, Sweet Peas and Zinnias.

Dreer's Garden Book for 1912 is not a mere catalogue, but is a work of valuable garden information for everybody. You cannot afford to be without it.

Mailed free. Write for it to-day.

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Our mixture contains a full range of colors. 10 cents per packet—15 cents per ounce—40 cents per ¼ pound. Garden Book free with each order.

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714 Chestnut Street **Philadelphia, Pa.**

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THE built-in bath is an integral part of the room and tiling —the joint is water-tight. It utilizes an awkward corner or recess. Space is economized. There are no out-of-the-way places behind or beneath. The fixture is embedded in cement, insuring durability and cleanliness.

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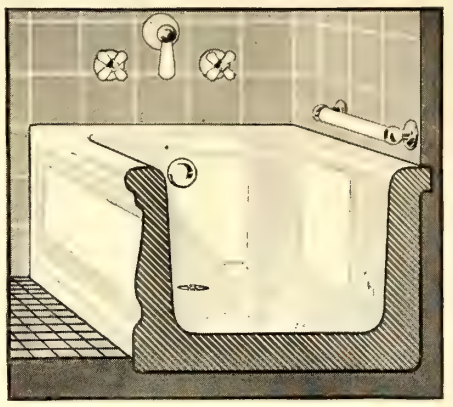

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HOME WATERWORKS. A Manual of Water Supply in Country Homes. By Carleton J. Lynde, Professor of Physics in MacDonald College, Quebec. New York: Sturgis & Walton Company, Cloth; 5 by 7½ inches; pp. 270; 106 text figures. Price, 75 cents net.

If we have any criticism to make of this book, it is the fact that it contains too much irrelevant matter. Plumbing and sewage disposal, cesspools, and discussions of sanitary problems, however brief, hardly find a place in such a book. Not all of the statements made on the subject of sanitation can be commended. Whatever the author may believe, the septic tank is not generally to be recommended. Despite these faults, the author has performed a really useful service in giving the general reader, without too much technical verbiage, a good idea of the various kinds of water supply systems which are available for country use. He has also given descriptions of the methods in which most of the apparatus described operates, which, although not strictly necessary, is nevertheless good, because only too few householders know anything of the physical principles that are involved in the construction and operation of water supply systems.

ROAD RIGHTS OF MOTORISTS. By Twyman O. Abbott. New York: Outing Publishing Co., 1910. Cloth, 12mo. Price, $1.50 net.

This is the book for the man who wants to know his rights and obligations on the highway. The Rules of the Road contain in full the law and the custom touching direction of travel, speed, responsibility for accidents, the meaning of negligence and all the manifold things that the motorist must know. Then follow the Motor Vehicle Statutes of all the states in alphabetical order. The volume closes with a General Index. Contains in compact form information that can be secured in no other single volume.

ITALIAN CASTLES AND COUNTRY SEATS. By Tryphosa Bates Batcheller. New York: Longmans, Green & Company, 1911. Large 8vo; illustrated; 512 pp. Price, $5.00 net.

Mrs. Batcheller's "Glimpses of Italian Court Life" is well known to the public, and the present volume will therefore find a circle of appreciators of this writer looking forward to this new volume from her pen. Travelers in foreign lands are inclined in writing of their travels and sojourns to show the more picturesque side of the life, which is the life of the lower classes, but Mrs. Batcheller presents the other side of Italian life, her stories sparkling with bright bits of biographies of men and women in the Italy of to-day, thus presenting a vivid and intimate picture of contemporary Italian life. Not only is the volume interesting in text, but it is beautiful in typography and in its binding.

THE IDEAL ITALIAN TOUR. By Henry James Forman, Boston: Houghton-Mifflin Company, 1911. Small, 16mo.; illustrated. Price, $1.50 net.

The object of this volume is to serve as a companion book to the traveler in Italy, as well as to supply an interesting and readable account of an Italian tour to the general reader. It aims to suggest an ideal tour in the most absorbing country in the world, leading the reader through the myriads of sights to those no traveler should miss, and telling him simply, picturesquely, and effectively, the things all travelers desire to know.

ROME. A Practical Guide to Rome and Its Environs. By Eustace Reynolds-Ball, B.A., F.R.S. London: Adams & Charles Black. New York: Macmillan & Co., 16mo. Price, $1.10 net.

There is perhaps no city in Europe which exercises so potent a charm on all classes of visitors as does Rome. It may be partly due to its historic traditions, memories and associations, in which no city in the world is so rich; or we may attribute this glamor to its wealth of art treasures, its noble churches, its streets of Renaissance palaces, and its supreme archæological and historical interest. Books about Rome are legion, and the author who is desirous of adding another to this literature should be very certain that he is able to produce a valuable handbook. Mr. Reynolds-Ball has succeeded in making a guide which is light in weight, small in size, and which is most comprehensive. The text is excellently written, and the authorities consulted most imposing. The climate and medical hints, if attended to, will greatly minimize the dangers of illness in Rome, stories of which are very much exaggerated. The illustrations, many of which are in color, are extremely beautiful. There is an excellent folding map of Rome on a good scale.

ESSENTIALS OF POETRY. By William A. Neilson. Boston and New York: Houghton-Mifflin Company, 1912. Cloth; 16mo.; 282 pp. Price, $1.25.

In his preface to this volume the author states that his point of view as presented herein was reached in the course of discussions with a class of students in English literature at Harvard University. The scope of the book is somewhat indicated by the titles of its various chapters: "The Balance of Qualities," "Imagination and Poetry," "Imagination and Romanticism," "Reason and Classicism," "The Sense of Fact and Realism," "Intensity in Poetry," "Sentimentalism in Poetry," "Humor in Poetry."

The author has made no attempt at a final definition of poetry. The formula he presents is only one of many ways that might be suggested of approaching the problems, practical and theoretical, which offer themselves for solution to the serious student of the subject.

Professor Neilson's book is quite as much a volume for the lay reader as for the advanced student, and is heartily recommended to everyone to whom the subject appeals in the least.

A LITTLE PILGRIMAGE IN ITALY. By Olave M. Potter. Boston and New York: Houghton-Mifflin Company, 1911. Cloth; 8vo.; illustrated; 360 pp. Price, $4.00 net.

This is a book of simple delight, a chronicle of little pleasures. The author takes one away from the great cities to the Italian hills and hill-towns—little cities of great memories standing knee-deep in flowers—Arezzo, Cortona, Perugia, Sienna, Urbino, and the rest of them. It is a delightful record in pleasant memory of a little pilgrimage that brought the writer to many shrines, and haunts of peace and beauty. Of unspoiled Umbria Miss Potter truly remarks, "If you are travel-stained with life, if the sweat of a workaday world still clings about you, if you have lost your saints and almost forgotten your gods, you will cure the sickness of your soul in Umbria." The illustrations are by Yoshio Markino, a Japanese artist of marked merit, working in the western way but awake to the more subtle impressions that often escape artists who are bent on making a pretty picture only.

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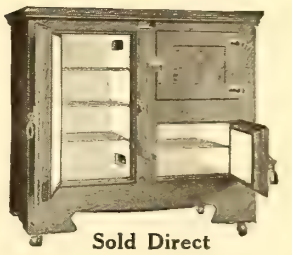

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It tells you what you should know in a manner that will enable you to grasp quickly not only the usual essentials and secrets of beautiful home making but it teaches also the various rules, elements and general principles upon which all good architecture is based. The author in preparing this book has drawn not only from his long personal experience, but has also consulted many other noted authorities, whom he quotes frequently, thus giving you the benefit of the experience and knowledge of those who by reason of their training—of their intimate knowledge of all that has been done in the past, has fitted them to wisely counsel you—enabling you to achieve effects otherwise impossible.

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This work is published in three series—1st and 2nd series each have 72 (10 x 13) pages and 35 designs. Houses of 1st series vary from $1,000 to $6,000. 2nd series from $6,000 to $15,000. Price of each $1.00, postpaid. Third series (a combination of 1st and 2nd series) will be sent postpaid upon receipt of $1.50.

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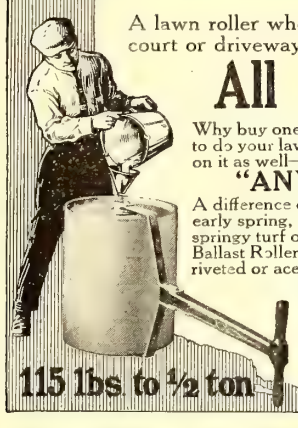

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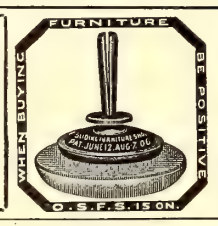

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An Introductory Psychology. By Melbourne Stuart Read, Ph.D. New York: Ginn & Co., 1911. 12mo.; 309 pp.; illustrated.

"An Introductory Psychology" is written in a popular rather than a technical terminology, so that any reader of ordinary intelligence may understand its teachings without first mastering a new vocabulary. After explanations of the general nature of consciousness and of the nervous system, the author deals with the various processes of adaptation, sense stimulation, the modes governing affection and feeling, attention and interest, memory, imagination, emotion and the will. For those who desire some primary knowledge of the human mind and its mechanism, this text-book will serve to initiate them into the first mysteries of a fascinating and comparatively new science. It will aid them toward a more intelligent direction of mental effort, and it imparts a knowledge that should be universal.

Playground Technique and Playcraft. Vol. I. By Arthur Leland and Lorna Higbee Leland. New York: Baker & Taylor Company, 1910. 8vo.; 284 pp.; illustrated. Price, $2.50 net.

The schoolroom inculcates obedience under pain of punishment; but the playground instills discipline, fortitude, and honor for the benefit of the one and the many. It teaches more forcibly than does the schoolroom, the lesson of our independence, and the necessity of sharing pleasure in order to enjoy it. Its activities clear the brain, upbuild the vital powers and the physique, and establish the outdoor habit. At the same time the brain is assimilating rules, grasping intricate situations, and learning to take quick advantage of these situations. "Playground Technique and Playcraft" is a very thorough study of the philosophy of play in its practical applications, and of the lay-out and equipment of the ideal playground. It emphasizes the adaptability of the child, through play, to the world of nature and material things. It is rich in suggestion to all child enthusiasts. A second volume still further develops the idea of manual training, through which the children are taught to make their own playthings, and includes also playground administration, supervision and operation.

Walter Pater. By Ferris Greenslet. Boston: Houghton-Mifflin Company. Price, 75 cents net.

This is a new and revised edition of Mr. Greenslet's well-known book on Walter Pater which appeared before in a biography of this Englishman of letters. Mr. Greenslet's treatment of his theme is equally sane and sympathetic. In a compass of 150 pages of large type the author has given a more satisfying portrait and estimate of Pater than have many other critics in a dozen times the amount of text.

King Arthur and His Knights. An Abridgment of Le Morte d'Arthur, edited by Henry Burrowes Lathrop. Illustrated by Reginald Birch. New York: The Baker & Taylor Company. 8vo. Price, $1.50 net.

Emphasis is laid upon the fact that this is not a series of excerpts from the original, but a careful abridgment in which the utmost has been done to retain in one volume of moderate size all the vivid coloring and incident of Malory's narrative. The story of the Morte d'Arthur is told, substantially as Malory told it, in a connected series of vital episodes that can not fail to appeal strongly to young people.

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THE *Engineer's Souvineer* calls attention to the materials used in the manufacture of the paper money for the United States Treasury. "The materials," says this publication, "that go to make our paper money are gathered together from all parts of the world. Part of the paper fiber is linen rag from the Orient. The silk comes from China or Italy. The blue ink is made from German or Canadian cobalt. The black ink is made from Niagara Falls acetylene gas smoke, and most of the green ink, mixed in white zinc sulphite, is made in Germany.

The red color in the seal is obtained from a pigment imported from Central America.

PHYSICIANS IN GERMANY

THE census of 1910 in Germany showed a total of 32,449 physicians in the empire. This is an increase of 480 over the preceding year, and represents one practitioner to two thousand inhabitants. The number of medical students showed a much larger increase, the numbers for 1909 and 1910 being, respectively, 9,239 and 11,-125. Although in general the cities have a larger proportion of physicians than the towns, Berlin does not lead in this respect. The number of physicians per ten thousand of the population varies through a rather wide range, being as high as 22 in Wiesbaden and as low as 4 in Gelsenkirchen. Some of the more important cities have the number of physicians per ten thousand inhabitants set opposite their names below:

Berlin	12
Munich	16
Stuttgart	10
Dresden	9
Leipzig	8
Plauen	5
Chemnitz	5

The number of women who are practicing medicine has been increasing rapidly. In 1908 there were only 55; in 1909 there were 69, and the number reported for 1910 is 102. Of these Berlin has the largest number, 32; and Munich, Frankfort and Dresden report six each. The number of women studying at the medical colleges increased from 371 in 1909 to 513 in 1910.

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By WERNER BOECKLIN

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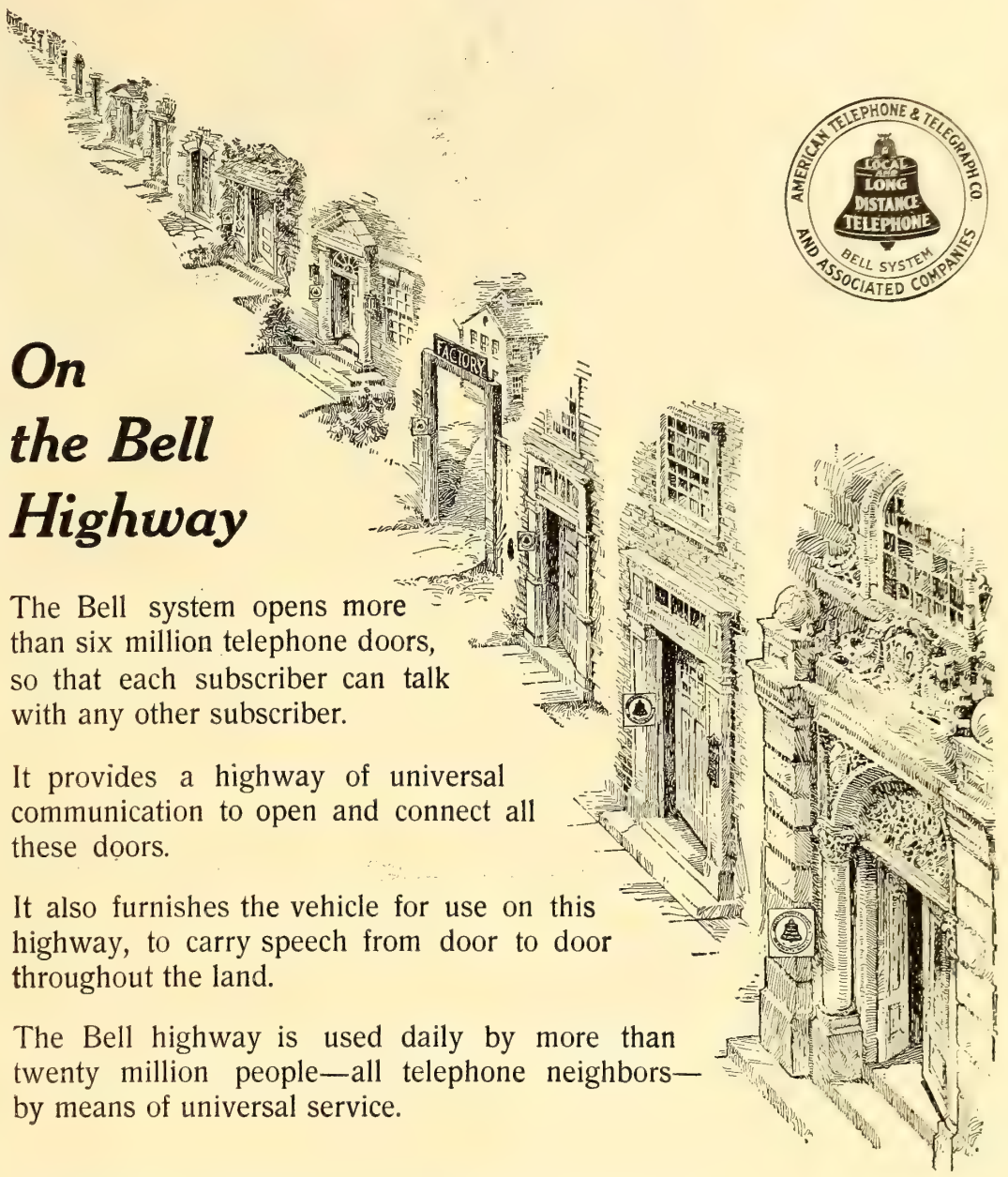
Having staked out the lines of trench, set the assistant to cutting the sods. See that these are put in separate piles ready for use elsewhere about the place or as manure in the bottom of the trench. This trench, for a single row planting, should be from twelve to sixteen inches wide and eighteen inches deep. For a double row planting the width should be increased to twenty-four inches. Have the soil thrown to such a distance from the trench that there is a clean, level space left between the edge of the trench and the toe of the soil pile. This

The Open Doors



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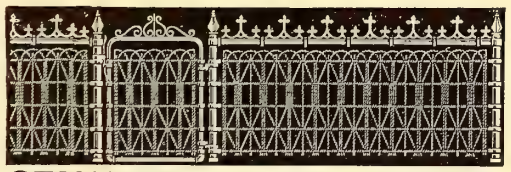

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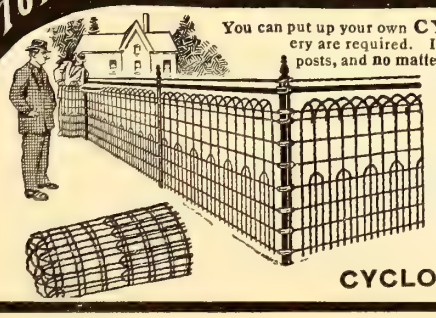

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Box 791, Painesville, Ohio

clear space on one side or the other allows the planter to do better and quicker work, particularly as to the proper depth of setting the plants.

The distance from the lower branches to the bottom of the roots in heavy plants is twelve inches and if the plants are set with the roots resting on the bottom of a sixteen-inch trench the branches will be covered with four inches of soil when the trench is refilled. It is a mistake to set the plants so high that the bases of all the branches are above ground. Plant them so that the point of juncture between the root stem and the branches is from four to six inches below the surface of the ground. This insures a thick hedge at the bottom where denseness is most needed.

One often sees a hedge planted on the top of a terrace and so close to the line of slope that it appears on the point of toppling over. If you think it necessary to plant a hedge on the top of an embankment, dig the trench four or five feet back from the edge so as to give to the hedge an appearance of security. Not only will it look better planted so, but the plants will thrive better, as all fertilizer which may be supplied from time to time will reach the roots and not be lost by washing down the embankment.

Whether in double or single row, plant from six to nine inches apart for a dense hedge. Two men, planter and assistant, should set 500 plants in a day, the planter holding the plants and pressing the soil into place about the roots. If planting is done in the Spring, cut the tops to within four to six inches of the ground, immediately after planting. If work is done in the Fall, defer the trimming to the following Spring. Trim three or four times in a season, each trimming being carried a little higher than the preceding one. After Fall planting, cover the ground about the hedge with stable bedding or with rich manure. The plants will get on without this mulch, but in the Spring when it is spaded in, the growth will be the better for the added nourishment.

Most people, I find, are not impressed by the theory upon which is based the pyramidal method of hedge trimming. They want square hedges, flat on top and with vertical sides. In some nurseries you may find demonstration hedges showing the advantages of the pyramidal form. On the other hand, I have seen, as doubtless has the reader, perfect hedges trimmed on square lines, thus rather discrediting the theory, so far at least as privets are concerned.

Although the privet stands the hardest sort of treatment one must not expect much of it when planted in line with street trees. The reason is obvious, too much shade and too many tree roots to steal away the nourishment which might otherwise go to the roots of the hedge plants. Do not therefore waste money on a hedge in such a position, for it will always look scraggy in spots.

What size of plants is it best to purchase? This depends in part upon the amount one is willing to spend and also upon the quickness of results looked for. The cost of cutting is nominal and the time before you have a hedge is correspondingly long. You may buy two to three-foot plants and pay $3.50 a hundred for them, or three to four-foot extra heavy at $5.50 a hundred. The additional cost, however, for the larger plants will not add appreciably to the cost of the hedge, for where one will use one hundred smaller plants there will be needed but sixty-six of the larger size and the results obtainable with the plants on account of heavy roots and bushy tops are so superior that one would not hesitate about a choice could the two hedges be compared side by side.

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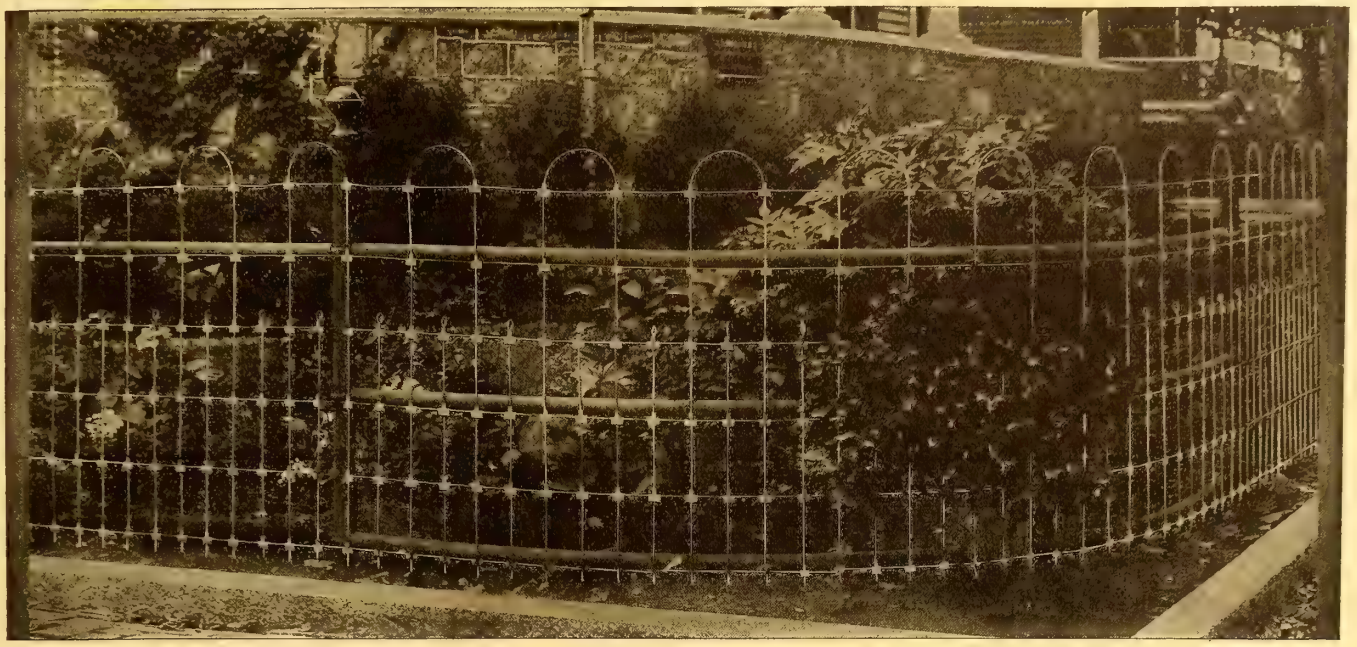

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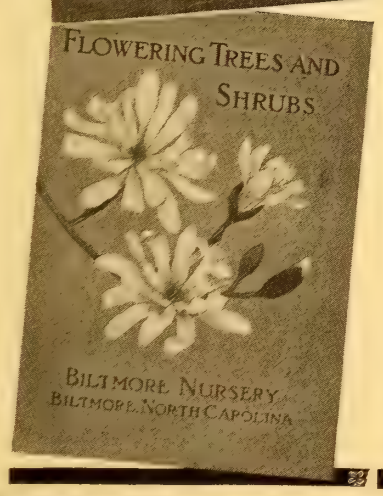

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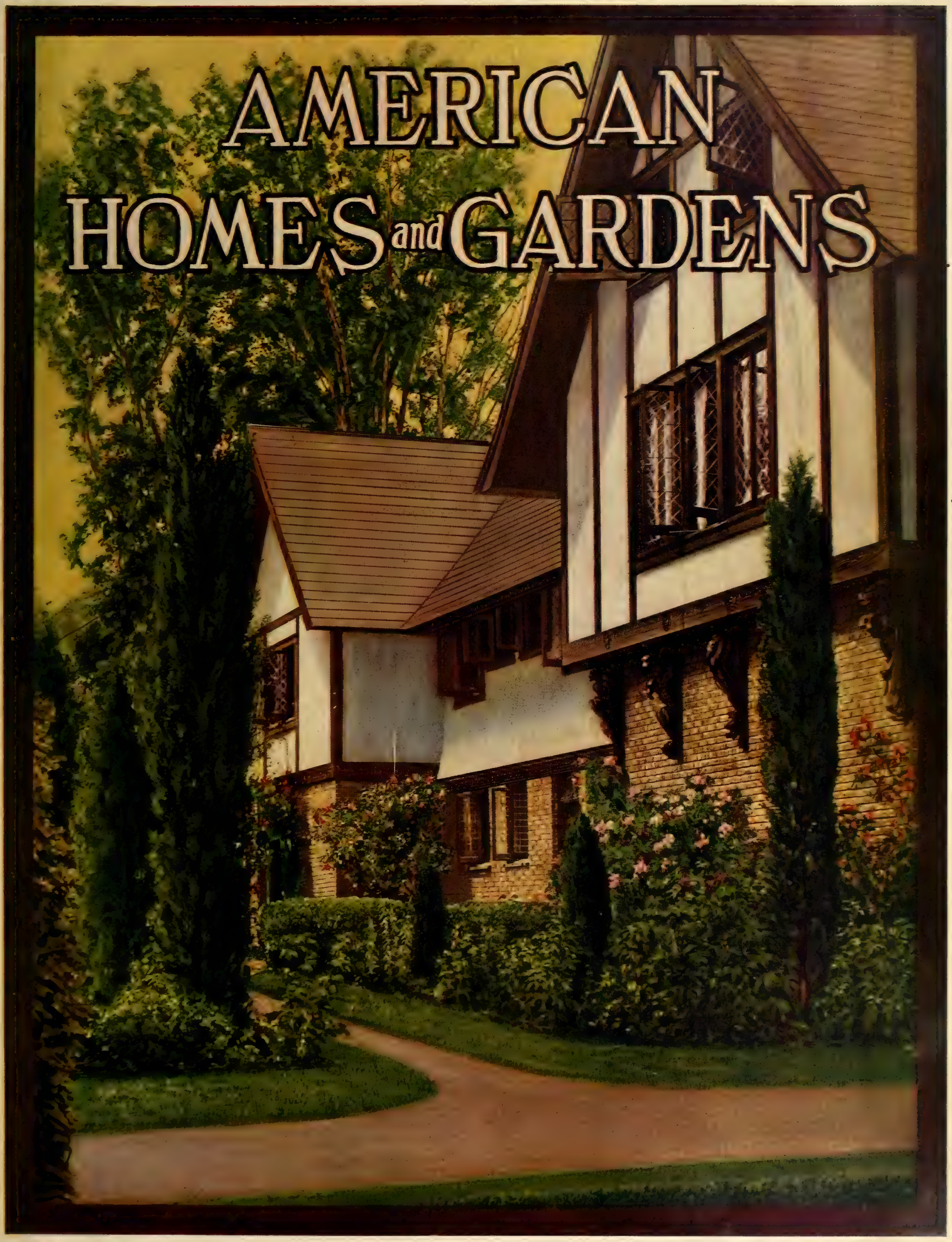

APRIL, 1912
Vol. IX. No. 4

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By R. E. Olds, Designer

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This price, I believe, can not be continued. Our contracts with dealers provide for advance.

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Tens of thousands of men, in the past quarter century, have used cars of my designing.

The have come to have faith in me. They believe that I know.

Reo the Fifth is my finest car, the cap-sheaf of my career. And myriads of men will remember me by it, whatever new cars the Reo plant may bring out.

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I have spent 18 months in designing this Farewell Car.

I searched the whole motor car world for ideas for it. In it I embodied the best I had learned from the 23 models which I built before it.

I never before gave such care to a car. Nor has any other man, I think.

Never have I stood for such big margins of safety—never insisted on such careful inspection.

Never before have I gone so far to get the final touch.

Look for Yourself

The lines of the car show its up-to-dateness.

The body is finished with 17 coats. The lamps are enameled. Even under the hood you'll find the engine nickel trimmed.

Note the deep upholstering, made of genuine leather, filled with genuine hair.

Note the car's roominess. Note the big wheels. The car is over-tired.

Note the absence of petty economies.

The Parts Which Tell

But the parts which tell in the long run are the hidden parts of a car. Men's final judgment will depend on them.

I use Nickel Steel in the axles and driving shaft, and I make them much larger than necessary. I use Vanadium steel for connections.

Each lot of steel, to make sure of it, is analyzed before I use it.

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The carburetor is doubly heated, to avoid the troubles due to low-grade gasoline.

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So in every part. All the precautions taught me by experience are employed in this Reo the Fifth.

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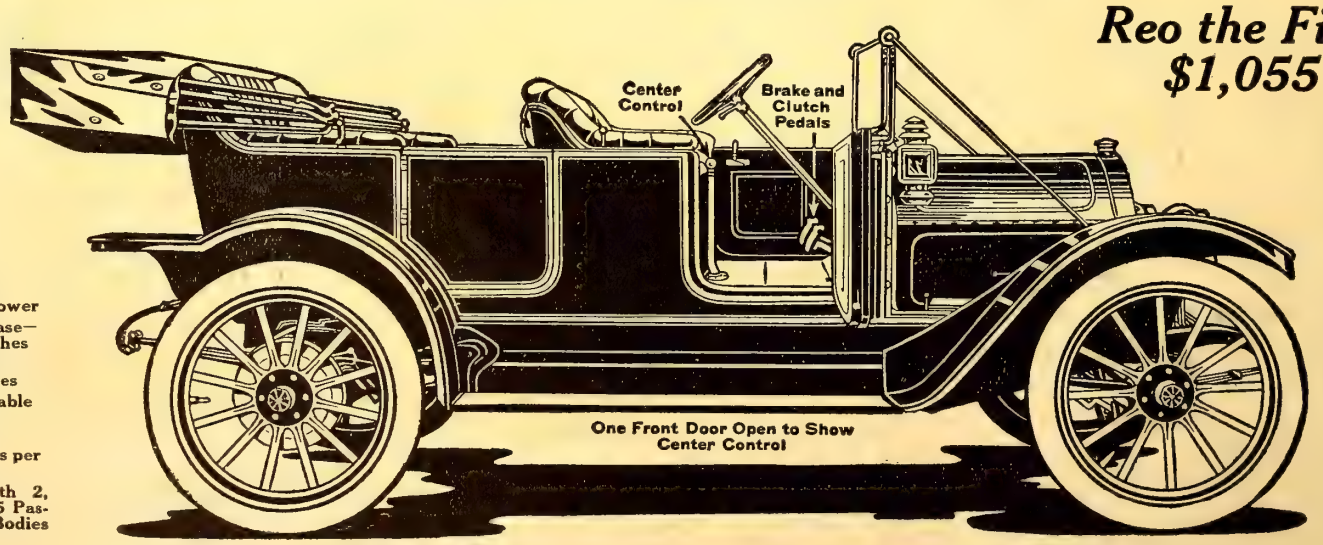

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MAKING A BEGINNING IN POULTRY-KEEPING

By E. I. FARRINGTON

APRIL is the best month in the year to begin poultry-keeping. It is the great poultry month. If a poultry-keeping venture gets a good impetus then, it seems to move on well through the year. The eggs are even more fertile than in March. The chicks hatched then are likely to be strong, robust and easy to raise. And chicks hatched in April will make good early winter layers.

There are three ways in which a man may begin with poultry in April. He may buy laying pullets and set the eggs or he may purchase several settings of eggs and hatch them with an incubator or hens or he may place an order for as many day-old chicks as he may want to raise. He may even combine these plans. To buy many pullets would entail a considerable investment, for they will cost from one to two dollars each. And yet, by buying a few mature birds he will have eggs all summer—perhaps until the newly hatched chicks begin laying in the Fall.

Whether he buys eggs to set or hens to lay the setting eggs, he will have to provide means of incubating them. Sitting hens are easy to find at this season and it may be possible to pick up several nondescript biddies at seventy-five cents apiece. It is a good plan to set several hens at the same time and to give all the chicks to one. If the beginner wants to experiment with an incubator, he can buy a good seventy egg machine for seven or eight dollars and the experience gained with it will be worth while. It is better to experiment now when eggs are cheap than earlier in the season when they are worth five cents apiece.

The simplest plan is to buy day-old chicks, selecting the breed which seems to possess the most desirable characteristics and taking into account the fact that such breeds as the Minorcas, Leghorns and Houdans lay white eggs and do not dress as well as the Plymouth Rocks, Wyandottes and Rhode Island Reds, which lay brown eggs. It will be remembered, likewise, that the members of this trio are persistent sitters, while those first named seldom become broody.

The business of selling day-old chicks has assumed mammoth proportions. Thousands of chicks just out of the shell are shipped for hundreds of miles every Spring. Having absorbed the yolks of the eggs from which they were hatched just previous to breaking through the shells, they need no food for forty-eight hours, which is the main reason that they can be shipped better when just hatched than later. Special boxes for holding the chicks when on the road have been invented and the express companies give special attention to shipments of this kind, which require quick delivery.

Many poultry-keepers have given up hatching chicks altogether. City people going to the country or the seashore for the summer and desiring a supply of fresh poultry find it an excellent plan to buy a few

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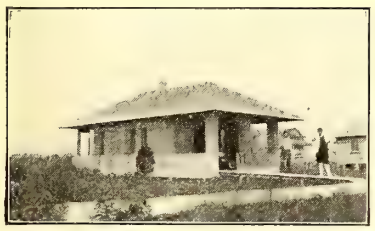

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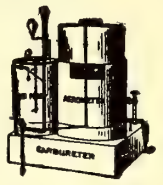

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dozen day-old chicks and raise them for their meat. Fanciers who want to get birds of a particular strain secure them in this way. And the amateur who starts his little poultry plant late in the season finds this plan a particularly satisfactory one. If he desires to buy a few pullets to give him immediate returns, the expense will not be great. The newly-hatched chicks will cost him from fifteen cents each up to very much more, depending upon where he buys them and whether he seeks ordinary utility stock or extra choice specimens.

When the chicks arrive they must be brooded and two or three motherly hens may be secured. Very likely, though, the amateur will want to use a brooder. At this season out-door brooders are very easily managed, and when they are used the chicks may be given a grass run. Fireless brooders may be used successfully, too, if the chicks are given a little extra care at first until they learn to seek cover when cold. Many people are very successful with these brooders, some of which cost only two dollars or even less, and they may be used in the room of the dwelling house or on the porch or even in a shed. It is desirable to have plenty of fresh air for the chicks and this may be secured by making a light frame to fit in one of the windows and covering it with muslin, which will allow a current of air to pass through but will keep out the wind.

LOVE IN A GARDEN

By MAUD BISHOP BURNS

She was a Canterbury Bell
And he was a London Pride—
The gay Cockscomb of that flowery dell
And he Aster to be his bride.

But the lady wished to Marigold;
There was None-so-pretty as she.
And she took no Stock, so I've been told,
In a lover so poor as he.

Said he, "Be mine, sweet Columbine.
Give your Tulips to me
And ease this Bleeding Heart of mine."
She said, "It cannot be."

I want to live in a Golden Glow,
Not in a Meadow Sweet,
I must have Phlox, where'er I go,
Of admirers at my feet.

Sweet William then, before he Rose,
Did Balsam at her feet.
But when she said, "Now Johnny-jump-up,"
His misery was complete.

Said he, "I go, cruel Columbine
Forget-me-not, sweet lady,
And a Bachelor's Button you will find
I'll wear forever—maybe.

Just then Jon Quil came passing by—
A Dande-lion he.
Said he, "Forgive me, if I spy,
But what is this I see?"

My sister, Prim Rose waits at home,
The Pink of propriety.
You said at Four-o'clock you'd come
And *she* your bride would be.

With that Sweet William got him hence,
But Columbine did stand
Until Jon Quil reached o'er the fence
And took her by the hand.

He said, "Be mine, my sweet Bride-Rose.
I'll ask Poppy to-day,
And he can dry some Widow's Tears
When you have gone away."

The lady dressed her Maiden's Hair
With a lovely Bridal Wreath;
Her Lady's Slippers she did wear,
And they walked across the heath.

Until they came to the edge of the wood,
To the spot where Jack-in-the-Pulpit stood,
And at Four-o'clock, I've heard it said,
Jon Quil and Columbine were wed.

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Refrigerators have many advantages. They may be made an integral part of the house, arranged to be iced from the rear porch so that the iceman need not enter the house—and equipped with ice water cooler, special racks for cooling wine, beer, mineral water, etc., and other conveniences.

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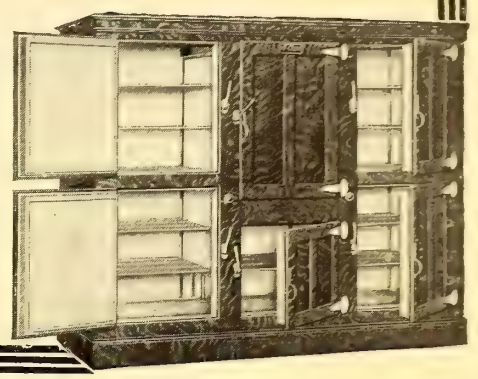

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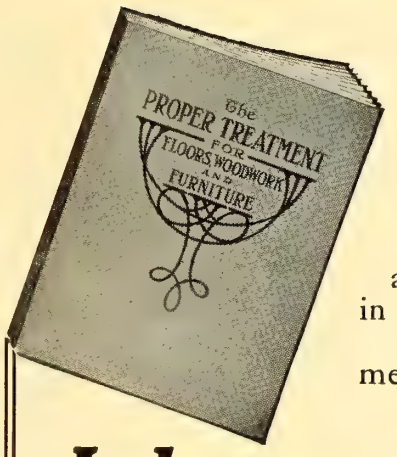

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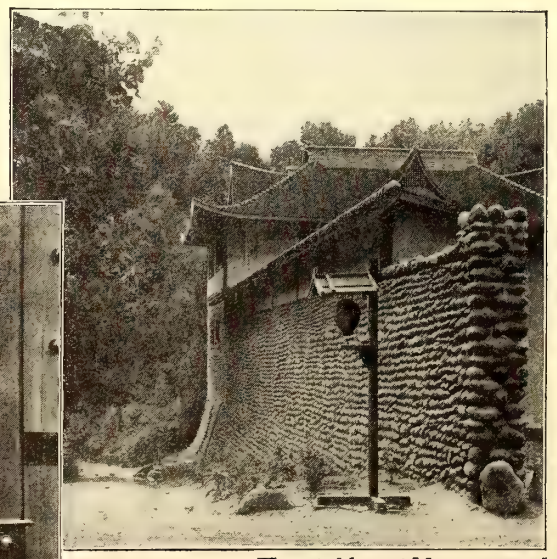

The stables at Yama-no-uchi

One of the entrance gates at Yama-no-uchi

SIMPLIFIED CAMP COOKING

By E. I. FARRINGTON

CAMPING out sometimes proves less enjoyable than expected because of difficulty in getting palatable food. Poorly cooked rations may be overlooked for a few days in the excitement and fun of being in the woods, but the desire for well-prepared meals soon returns. Cooking in camp entails many difficulties at the best, but may be made comparatively easy by taking along some of the prepared foods now sold.

Erbswurst is a standard ration with experienced campers and is sold by sporting goods stores. It is a powder occupying but little space, from which an appetizing and very nourishing pea soup may be made in a few minutes by mixing it with boiling water. Many people like erbswurst so well that they use it in their homes regularly, as it costs but little. It has long been included in the regular army rations of Europe.

Condensed milk will be taken as a matter of course. It is better than evaporated milk in camp, because it is sweetened, so that less sugar need be included in the luggage. Also, it requires less space. Coffee made over a camp fire may be satisfactory to the novice because flavored with romance and sentiment. Some camp cooks are able to make good coffee, but the safest plan is to carry powdered coffee, which is ready to drink as soon as boiling water has been poured over it. Cold coffee is made by mixing the powder with cold water. The powder is put in the cup, and each camper may have it strong or weak, as he likes. A small can which may be slipped into the pocket is enough for a long trip, and may be bought at the department stores. Sugar in loaf form has the advantage that it is not easily spilled if a bag bursts.

Various vegetables, such as potatoes, spinach, carrots, cabbages and onions may be bought, dried or shredded, and gelatine capsules containing salt and pepper are put up, although these condiments are easily carried in small tin boxes such as cocoa comes in. Eggs come in powdered form, and are kept for campers by sporting goods stores. Raisins in packages should be included and are excellent to carry in the pocket when on a tramping trip a long way from camp. A few raisins will stay one's hunger for a long time. Chocolate answers the same purpose very well, but has a tendency to create thirst, which cannot always be gratified easily.

There are various devices for making camp cooking easy, among them an aluminum baker, a frying pan with a handle which can be removed when the pan is packed, and dishes which nest into one another, but they are all more or less expensive. One of the greatest conveniences is a fireless cooker, and that may be made easily enough by means of a wooden box, a kettle with a close fitting cover, a small supply of hay and a little square pillow. A tight cover should be made for the box and the latter filled with the hay, in which a nest is made for the kettle. The food is started over the fire, the cover of the kettle put on tightly to retain the steam and the kettle placed in the nest of hay, the pillow being placed over it and the lid of the box closed. If the cooker is tight, the food will go on cooking for hours. Breakfast porridge may be put into it at night and be hot in the morning, allowing the cook to spend an extra half hour in bed. The dinner may be started in the morning, and the campers go away for several hours, leaving it to cook. There is no danger of the food burning or boiling dry.

Thermos bottles are cheap now and are exceedingly valuable in camp, making it possible to have cold water to drink at any time. Aluminium table dishes are excellent, although rather expensive, because they are very light to carry. Some campers like to take along a supply of wooden or paper plates and throw them away after they have used them. Canvas collapsible water pails and basins fill a real need and take up but little room when packed. The camper expects to "rough it," but will find it worth while to plan various ways of making the work in camp easy and of ensuring an abundance of palatable food.

THE UNCOVERING OF HERCULANEUM

THE excavations at Herculaneum were discontinued in 1780 owing to the spreading of the town of Retina, which is built over the ancient site, and the work could go no further on this account. The area now excavated is small, and is limited to a space traversed by an ancient street bordered with the remains of houses. But even from this limited space were taken the objects which are now in the Naples Museum, especially the bronzes which are so much admired and which give evidence of the superiority that Herculaneum has over Pompeii in artistic riches. Unfortunately there are several obstacles which prevent uncovering the site of the ancient city to bring to light its buried treasures. A town of 30,000 inhabitants lies over the site, to begin with. Another obstacle lies in the fact that owing to national pride, Italy does not wish the honor of uncovering Herculaneum to go to any other nation. Still another point which causes much discussion among scientists, is the composition of the volcanic covering and the means of removing it without complications or great expense. This last problem needs to be solved in the first place before coming to the two others.

Prof. G. di Lorenzo of the Naples University has been occupied with the question, and his opinion has much weight, as he is a leading geological authority. The ground under which the ancient ctiy is buried and carrying the town of Retina forms a small valley bordered by ranges of hills on several sides and on the west by the sea. The hills or rocks are of recent formation, being composed of lava coming down from Vesuvius in 1631 with such great speed that it reached the sea in not more than an hour. The present appearance of the valley is thus different from what it had been in ancient times. Strabo and other ancient authors state that Herculaneum was situated on a promontory lying between two rivers and was at sixty feet above the level of the sea. At present, the city lies no less than sixty feet below the present level of the new town. Prof. di Lorenzo considers that the only possible way will be to run underground tunnels starting from the already-opened area. But a scientific theory has been opposed to this enterprise up to the present, this being the hypothesis of two kinds of lava. What was done at Pompeii could not be carried out at Herculaneum not only on account of the new town, but also from the different structure of the lava in the two cases. While Pompeii was covered by a cinder layer the other city was buried under a layer of mud, and this became so hard that it is now very difficult to cut or blast. However, several objections can be made to this old theory. As the city lay on a promontory, it is natural that the mud torrents flowed rather in the two river beds at its sides. Besides, an abundant rain would be necessary to make such mud tor-

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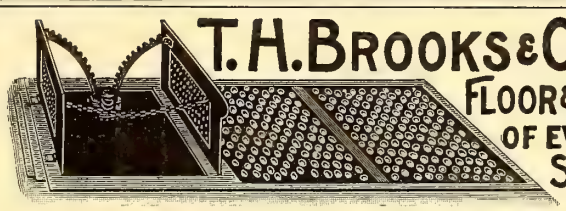

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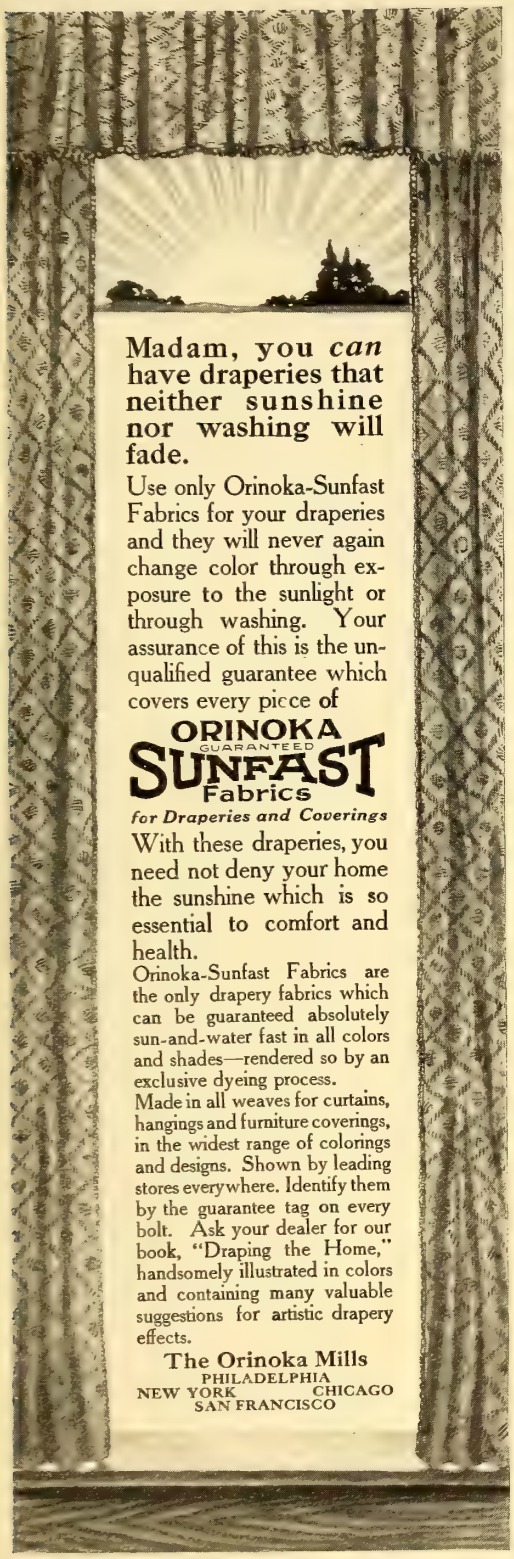

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rents flow, and none of the ancient writers mention any rains which were produced at the beginning of the eruption. On the contrary, what makes it probable that both Pompeii and Herculaneum were covered by the same kind of deposit is the letter addressed by the younger Pliny to Tacitus, stating that his uncle, the elder Pliny, after observing the gigantic smoke column in the shape of a pine tree at the beginning of the eruption and hearing of the critical situation of the sailors in the port of Retina, this being the port of Herculaneum (the new town lies back of this site), fitted out a number of vessels and proceeded to this port. But he could not land on account of the ash and other volcanic matter of all kinds, which were highly heated and fell thickly upon the sea, even then raising the sea bottom, so that he was obliged to land at another point. Pliny mentions numerous kinds of dry matters, but makes no allusion to a rain which would be needed to make a flow of mud. A geological examination of the ground of Herculaneum shows besides that it is made up of a thick layer of volcanic ash of the nature of pumice stone and is quite the same as the deposit of Pompeii in its composition. Only the higher region of Herculaneum shows layers of mud deposit due to alluvium which was afterwards formed by rainfall, and this gives a soil of another structure. Another objection given by the old theory seemed to be conclusive, that is the difference in the patina of the bronzes coming from the two cities, but Prof. di Lorenzo gives the following explanation: The patina of the bronzes found in the Eighteenth Century is lacking from the fact that the objects were cleaned and varnished. Recent bronzes have their patina, which is green at Herculaneum and blue at Pompeii. The deposits at this latter site were less dense, and the waters passed through freely, giving a deposit of blue carbonate of copper on the bronzes. The contrary is true for the other site, and the water filtered through much more slowly, so that it gave rise to a green carbonate. To conclude, if it is proved that the material which covers the two sites is of the same composition and this idea becomes general, there will not be the same obstacle towards making the excavations and these can be carried on underneath the town of Retina without any special difficulty.

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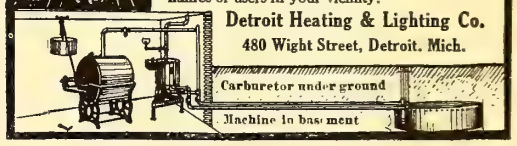

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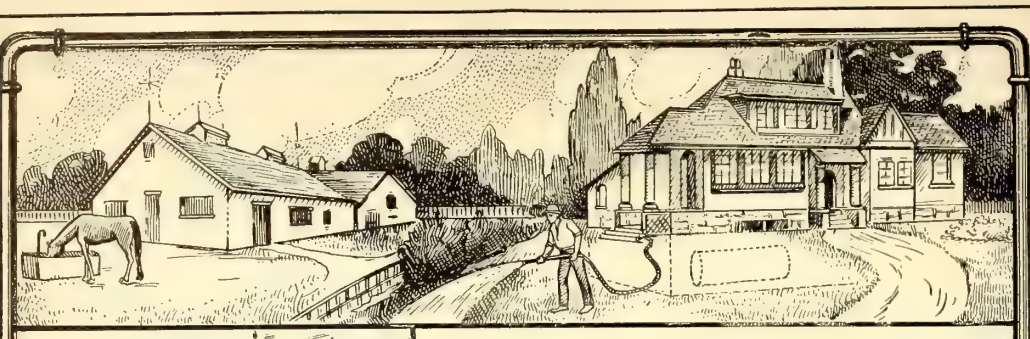

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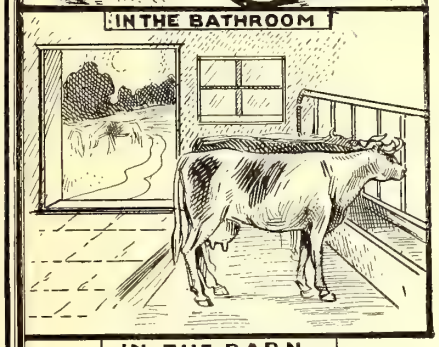

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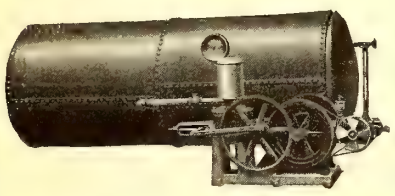

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GRAPES FOR A SMALL COUNTRY HOME

By E. P. POWELL

AFTER the apple, which needs too much room for our smaller homesteads, there is no fruit that is so indispensable as the grape. You can grow nothing else in such quantities in a small space, nor is there anything else more wholesome and food-full. It is our vegetable beefsteak. I have over one hundred varieties, and am interested in every new candidate. I think that twenty of these could be selected as indispensable for a large country home. I will divide this list in two, and offer ten, such as I believe will be easily cultivated and find room on a small homestead of five acres. Supposing that we are located as far north as Massachusetts or Central New York or Northern Ohio, the list must be tolerably hardy. In fact, I will not offer you a single grape that needs to be covered during the Winter, although it compels me to leave out the one kind that I place ahead of all others, the Iona. Its best rival, the Jefferson, must also be left for those who garden south of the New York line. Of black grapes, I place unhesitatingly at the front these three: Moore's Early, Worden, and Herbert. Moore's Early gives enormous crops, after the vine is well grown, ripens them perfectly in the northern latitudes as far as Canada, and gives us a most delicious berry in large bunches. In some sections Campbell's Early is the mate or rival; with me Moore's is best. Worden is a superb grape of the Concord family, only immensely better, while the vine is vigorous, productive and hardy. Herbert is hardy, but fails at one point; it does not pollenize itself, and needs to be grown near Moore's or some other grape that can furnish pollen.

I would select as my three indispensable red grapes for the north: Brighton, Lindley and Gaertner, or where good care is given, take Delaware. Below the New York line we have Jefferson and Catawba. This last is the great vineyard grape of northern Ohio. The Brighton has large bunches of exceedingly rich berries, ripening very early, but not keeping for any length of time. It is delicious for about one month. Lindley is a rampant grower and gives superb fruit, only here again there is a lack of self-pollenization. Grow it near Moore's Early. Gaertner is a delicious grape, one of the best ever produced. If you will grow these two last-named grapes over your buildings, always in company with a good pollenizer, and let them hang on until heavy frost, you will find out what a grape can be.

Of white grapes I should select as requisite to comfort and pleasure: Lady, Hayes and Niagara. This leaves out two or three close competitors, like Diamond and Colerain. McKinley I have not tested, but it is said to be a stronger grower than Niagara, and of remarkable quality. The Lady grape also needs pollenizing in order to get full crops, but it surely is a wonderful fruit. Eldorado is a good deal like it in color and quality. The Hayes grape is a very successful fruiter, and the quality is closely second to Lady. Niagara is pretty well known by everybody, and deserves everthing that can be said in its favor—only be sure that you get it dead ripe before you undertake to eat it. It produces immense crops on thoroughly hardy vines. Diamond is one of the close competitors, and is popular and successful as far south at Middle Florida, as also are Niagara and Moore's Early. Pocklington is another

white that is absolutely hardy, giving excellent crops; but the grape needs long seasons to thoroughly ripen it.

Now, what will you do with your grapes? Certainly you need not plant a vineyard unless you have room for it; but you can grow tons of grapes all over your house, all over your barns, climbing some of your line trees, covering rockeries, shading arbors, and in your small garden a few vines can be tied to posts. I never yet saw a home that had not room for a grape vine. Growing on a house it does not create dampness, but will prevent dampness; only, do not nail the vine to the boards, but tie it to wires that are stapled across the side of the house. Do the same with your barn. A small family can almost live on grapes, with eggs and milk. At any rate, whatever else you leave out in your country home-making, do not leave out a full supply of grapes.

Both the setting and the trimming of grapes are simple affairs, not demanding anything like the fussing that is advised at times. Any of the grapes I have named will grow perfectly in good garden soil. You can plant old bones and old leather and all the rest of such stuff around the roots and also without doing any good. Keep the ground well stirred, and if you mulch continuously, I do not know a better material than ashes—anthracite coal ashes with a mixture of common wood ashes. The trimming of grapes requires sharp cutting back, to one bud the first year; to two or three buds the second year, and after that you may train your limbs to trellises, or let them go hand over hand up the trees. In the Fall it will be quite enough for you to cut back the arms to about one or two feet, and let the canes fall to the ground. In the Spring tie them up again. Of course, your grapes that climb trees must take their own sweet will, and as a consequence will give you less perfect bunches, but plenty of them. The old Concord, which I have not included in my list, is still the big grape for utterly careless people. It will grow anywhere and everywhere, and it will give a lot of grapes. These will not get really sweet in a short season, not north of New York. If I were sure of a very long season I would put in Jefferson, Concord, and one or two more.

THE CARE OF THE APPLE TREE

By M. ROBERTS CONOVER

THE suburbanite who has recently purchased a country home often finds upon his property some apple trees of bearing age. The average man looks upon these with pride, delighting in their sturdy limbs and spreading branches and dreaming of the ultimate harvest. Then he turns his attention to his peach and plum trees, diligently pruning and spraying to perfect their fruit It is a mistake to neglect the apple tree, for although it may not succumb as easily as shorter-lived trees, it is vulnerable.

Apple trees will exist as shades trees on sod ground and yield some apples, but the man who grows trees for fruit cultivates them. This cultivation should be as regular as that required to raise a crop of vegetables. The apple requires moisture that it may draw the essential elements from the soil and cultivation conserves this moisture in the soil.

The fruit of the apple tree is borne upon small spurs from the main branch and these spurs are grown during the previous season. The fruit buds from which spring the blossoms are perfected for this function during the latter part of the previous season. Thus a crop depends upon favorable condi-

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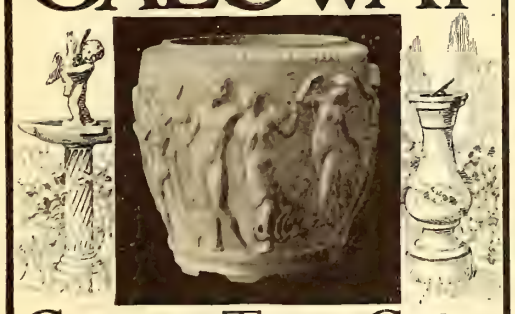

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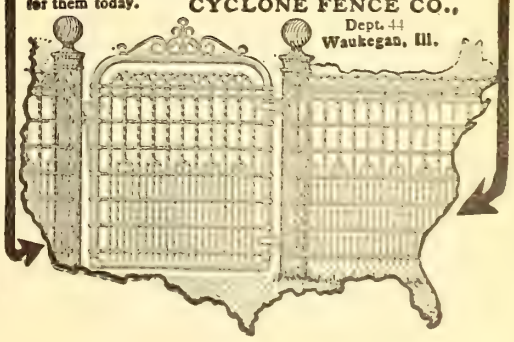

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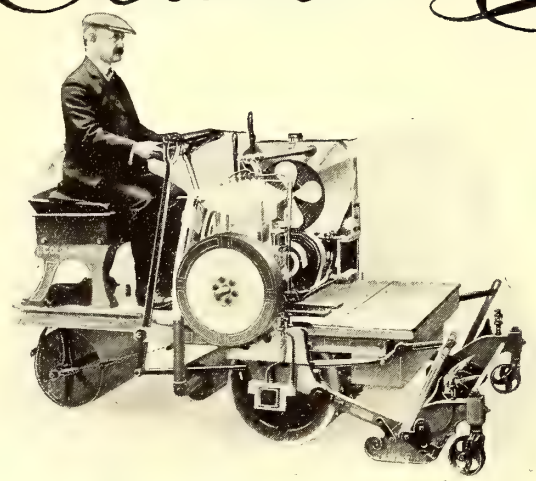

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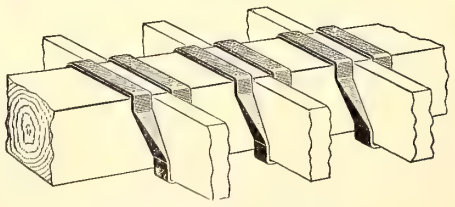

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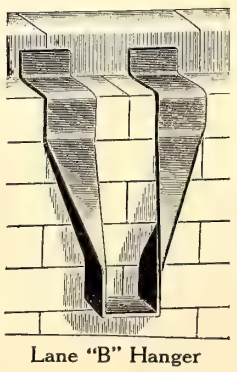

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tions of growth during both years. Apple trees usually bear abundantly every other year, perfecting fewer buds during the season of heavy fruiting, and many fruit buds during the season of scanty yield. It is advisable to do the severest pruning after a heavy yield, either in early Winter or early Spring, when the sap is not flowing or the wood is frozen. Give to the soil a heavy application of such material as will aid in the growth of the tree during the off year. Well-rotted manure and decaying nitrogenous plants such as clover, furnish the necessary elements.

Fertilizing

Quick-acting fertilizers which affect the growth of blossom and fruit directly should be applied in the Spring of the fruiting year.

Manure should be spread under the trees over all the shaded portion of the ground before the ground is ploughed in the early Spring. Nitrogenous plant food from clover is made available to the trees by its growth and subsequent decay. During the season that the apple trees are in heaviest bearing the clover should be broadcasted beneath the trees, usually about the middle of July or the first of August. From one-half to a pound of seed per tree should be used. On small areas it may be raked in with a steel garden rake, or a harrow may be used. The kinds of clover usually sown for this purpose are the ordinary red clover (*Trifolium Pratense*)—fifteen pounds to the acre—and scarlet clover (*Trifolium Incarnatum*)—twenty pounds to the acre. The former is perennial; the second comes to maturity in May or June following its planting and dies, but the fertilizing function is the same with each variety, as they store nitrogen in the nodules of their roots. These clovers may be ploughed under in the Spring or chopped into the ground with a cutaway harrow later in the season, leaving a quantity of rich plant food in the ground.

In the Spring of the year of abundant yield the following fertilizing elements should be applied beneath the trees, using twenty pounds to a tree: Two parts of nitrogen, nine parts of acid phosphate and twelve parts of potash. The soil is then cultivated until fruition.

Pruning

Pruning is a vital consideration. In the case of young trees it consists of thinning out conflicting branches in such a way that a reasonable amount of sunlight has access to the branches. This must be done every year.

The trunks of the trees must not receive any injury, as the trunk is the connection between the root system and the assimilative or leaf system of the tree. With the apple, as with other exogenous trees, the vital part of the trunk is the outer part beneath the bark. Between the hardened older wood and this bark the cambium layer of cellular tissue is, during the growing season, forming new bark and new wood and conveying sap from the roots to the leaves. The wood already formed in the heart of the tree makes no new formation and conveys no sap, but this heart-wood is important in that it sustains the weight of boughs and branches. Many old apple trees with rotten heart-wood support healthy branches, even bearing fruit, because nurtured by the sap-wood. A tree in this condition has not long to live, however, as the mouldering portions corrupt the healthy wood. The decay of the heart-wood is generally due to the admission of water through channels made by insects, or by cracks in the boughs near the trunk—a common occurrence with trees having heavy horizontal limbs.

An apple tree usually has spreading branches, due to its nature and to pruning, which thins out cross branches and induces growth toward the outer sides of the tree. All branches undisturbed by accident maintain the same general direction and the same height from the ground established during their early growth. A horizontal limb five feet from the ground when the tree is five years old will still be a horizontal limb five feet from the ground when the tree is fifty year old, only so much longer and heavier that its weight may menace the trunk. With a view, then, to the longevity of the tree it is better to avoid downward or horizontal branches beyond a reasonable length and to retain those that tend upward at an angle of forty-five degrees.

The lives of old trees yet sound may be prolonged by lopping off all horizontal boughs to a length not exceeding one-third of the height of the trunk between the ground and the heavy bough.

New growth is induced on these old trees by cutting back all boughs in the middle of the tree to one foot from the trunk. As the new growth puts forth it must be thinned out. All pruned parts must be painted over the surface of the raw wood, else it will crack and admit water.

Neglected Trees

Old neglected apple trees have rough bark which is scaly and loose. If you remove a bit of this you will see beneath it another bark, smooth and brown, similar to that of young trees. This is the true bark. The other is dead and useless, having served its purpose. It sheds off from time to time, but enough remains to harbor injurious insects. In early Spring, before the under bark is tender from the rising sap and after severe freezings are passed, this bark is removed by drawing a hoe up and down the trunk and lower parts of the boughs, using care not to injure the bark beneath. Such spraying as is necessary to kill the San Jose and other pests should immediately follow this scraping. At this time of year a solution of lime, sulphur and salt, known as the California wash, is safer than petroleum. It can be bought from seedsmen or dealers in horticultural apparatus in an undiluted state.

Insect and Fungous Pests

The enemies of the apple are of two classes, insect pests and fungous diseases. Treatment generally consists of applying liquid poisons in a fine mist with a spraying apparatus. It is effectual as a preventive rather than as an immediate cure for affected trees.

Bordeaux is the proper treatment for fungus which spot the leaves and fruit. Arsenic or Paris green are the necessary ingredients for spraying for eating insects, and kerosene, sulphur or lime for lice or sucking insects.

Scalecides should be applied to the limbs and branches before the buds swell.

A fungicide that is also an insecticide is the most practicable for application after the foliage and fruit are established.

Bordeaux mixture with Paris green may be prepared as follows: Two and one-half pounds of copper sulphate dissolved in water; two and one-half pounds of fresh stone lime slaked in water, using about twenty-five gallons of water in all. The two liquids are run together and one-sixth of a pound of Paris green previously dissolved in water is stirred into the mixture.

These poisons must be handled with great care. The hands should be proteced by gloves, and a pair of goggles over the eyes is a wise precaution when applying the spray.

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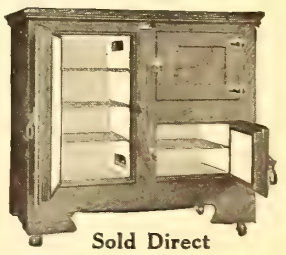

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Locks and their Uses

A lock is as strong as its bolt—but its security is entirely dependent upon how well its mechanism is protected against attack through the keyhole.

If any one of a dozen keys will open your lock, of what use is its strong bolt?

If the merest tyro and sneak thief can pick your lock in two minutes, of what use is your lock?

These are the reasons why all the ingenuity of lockmaking has led, not in the direction of stronger locks, but in the search for a mechanism which would absolutely prevent the lock from being opened by any means save its own key.

Warded Locks

The simplest form of protecting the lock mechanism is found in the warded lock. Projections in the keyhole prevent the entrance of any key not having corresponding grooves in the key.

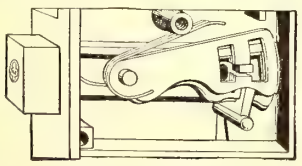
Keyways of Warded Locks

Further projections inside the lock prevent the key from turning, unless it fits exactly, but the number of variations practical in the shape of the key is so small that generally one out of every four is a duplicate.

The warded lock key of your next door neighbor is quite likely to fit one of your locks.

Lever Tumbler Locks

Then comes the lever-tumbler lock in which a greater number of key

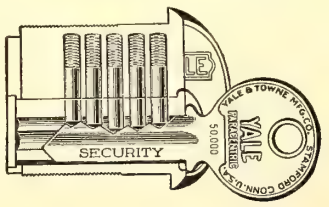


Interior of a Lever Tumbler Lock

changes and much greater security is obtained by using a number of flat tumblers. This type of lock is largely used for inside doors in residences, for which purpose it is well adapted. It offers satisfactory security against picking or accidental interchange of keys.

Cylinder Locks

The first lock to offer an absolute key control and a perfectly protected mechanism was the Yale Cylinder Lock, now known as the symbol of lock security throughout the civilized world.



A Yale Cylinder cut open to show how the key when inserted sets the pins so the bolt may be thrown

Each Yale Cylinder Lock requires a different key. No other can possibly open it, and no record exists where a sneak thief has succeeded in picking a Yale Cylinder Lock.

For the interior of your house, it does not matter much whether the key to the dining room will also unlock the nursery door. For that reason interior doors in most houses are fitted with a good grade of lever-tumbler lock. Care should be exercised, however, not to choose too cheap a lock, as it will quickly become useless and have to be replaced.

In case it is desired to have additional security, it is always very easy to add a Yale Cylinder Night Latch to a door. This is a form of Yale Cylinder Lock in which the bolt is automatically shot, thus possessing the advantage of not requiring the insertion of the key in order to lock it.

A Yale Cylinder Night Latch

The Yale Cylinder Night Latch, in a wide variety of forms, is also frequently added to outside doors, kitchen doors, cellar doors or any door where access to the house might be made. The Yale Cylinder is also incorporated into even the most elaborate designs for door sets, such as are used on outside entrance doors.

There are Yale Cylinder Locks for sideboard drawers and cupboards, pantries, closets, bureaus and desks, for trunks and boxes. You will always find a Yale Cylinder Lock for your purpose.

Padlocks

The mechanism of the Yale Cylinder Lock is also found in padlock form, and many of the best automobiles are today completely equipped with Yale Cylinder Locks before they leave the works.

Another great advantage offered by the Yale Cylinder Lock is found in the master key. You may have any number of Yale Cylinder Locks, for each of which a different key is required by your servants, or employees, and yet you may carry one key which will open every lock.

The highest type of lock security is found in the Yale Bicentric Lock. It contains two separate pin-tumbler mechanisms—one for the individual key and one for the master key.

This is perhaps the most wonderful of all the forms of the Yale Cylinder Lock, as it not only offers perfect security, but it also fixes the responsibility for the contents of any room or building or box upon the man who carries the key.

No other key will open that particular lock, and yet the owner of the master key may make an inspection at any moment without any warning.

This also does away with the necessity for carrying a huge bunch of keys, a service which is greatly appreciated by every man.

It must be remembered that lock security is exactly what the words indicate. The ordinary door may be battered in or broken from its hinges, but this is not the method pursued by sneak thieves and burglars. The success of their operation depends entirely upon stealth and the absence of noise, which is sure to lead to their discovery.

This is all the more reason why it is essential to have your outer doors protected by Yale Cylinder Locks. They cannot possibly be picked or false-keyed by a sneak thief. He is apt to give up the job in disgust the moment he sees the name "Yale" on the key plate of your door. That little word is in itself almost an insurance against theft. The thief knows only too well that the one way to get by a Yale Cylinder Lock is to break down the door, and to this he never resorts.

Most helpful in the selection of locks and hardware of all kinds will be our little book entitled "Yale Hardware for Your Home." We shall be glad to send you a copy free if you will send us your name.

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THE EDITOR'S NOTEBOOK

FRANCIS DURANDO NICHOLS

THE many readers of AMERICAN HOMES AND GARDENS will regret to learn of the death of the former editor, Francis Durando Nichols, who succumbed to a lingering illness of many months, February 28. Mr. Nichols had hosts of warm friends and during the period of his editorial duties with AMERICAN HOMES AND GARDENS was ever loyal to the interests of this magazine and enthusiastic and unremitting in his efforts to assist in promoting its welfare. His loss will be keenly felt by his associates and by all who knew him.

THE SMALL HOUSE NUMBER: MAY

THE annual Small House Number of AMERICAN HOMES AND GARDENS will constitute the May issue. This will be one of the handsomest numbers ever issued of any magazine devoted to the subject of the home, its furnishings and its surroundings. It will form a special feature of the year's program for this periodical, and will be greatly increased in the number of pages for this issue. Every homemaker is interested in the small house, and the May number of AMERICAN HOMES AND GARDENS will contain page after page of text and fine illustrations and floor plans of small houses by some of the leading architects of the day in America. Houses in the East and in the West will both be shown, small houses of every type, and this issue of the magazine will be a veritable architectural handbook on the subject of small houses suited to every site and locality. In addition to the small house articles are numerous others; one describing a beautiful garden near Philadelphia, exquisitely illustrated; another on "Garden Seats," an article on the subject of tiles and their architectural uses, one more in the series on Poultry-Keeping and also one on raising ducks, and notes on horticultural subjects, and the regular departments of "Within the House," "Around the Garden" and "Helps to the Housewife." The fact that AMERICAN HOMES AND GARDENS is constructive in its policy and presents in every issue related material, marks it as unique in the periodical field, and has won for it the strong support of the discriminating, who have become and have remained its strong and appreciative friends.

VILLAGE FREE DELIVERY

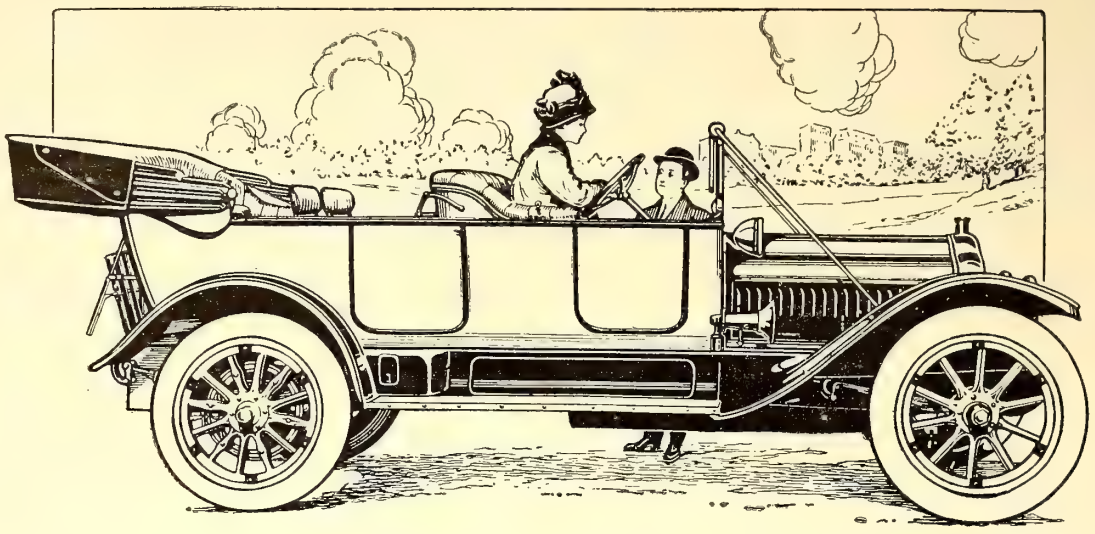
THE Postmaster-General has placed before the Senate and House Committees on Post Office and Post Roads a memorandum recommending an appropriation of $100,000 to be applied to putting into operation a Village Free Delivery service. The present law confines the delivery of mail matter to cities having a population of 10,000 or more, or annual receipts at their local post-offices of at least $10,000, with, of course, the exception of the existing rural routes now receiving free mail delivery. The carrier delivery service is now operated in 1,541 cities, and the rural free delivery routes number 42,000. However, this leaves some 30,000,000 inhabitants of the United States without any form of free delivery service. The Postmaster-General recommends that not over $1,800 be allowed for the projected extension at any single office. The Postmaster-General is quoted as saying that "while it is scarcely feasible to establish free delivery service in villages and towns, on account of heavy expense, it is entirely practicable to furnish to the postmasters at the places a comparatively small allowance that would enable them to employ necessary assistance to deliver mail at residences of their patrons. These people now are obliged to call at the post-offices for their mail. Authorization by Congress of the plan suggested would be of great convenience to nearly 30,000,000 people, and would remove from the postal service an apparent discrimination against residents in towns and villages." While the Editor of AMERICAN HOMES AND GARDENS strongly approves of the extension of the free mail delivery service to villages and towns now unprovided with such service, it remains a question as to the feasibility of the Postmaster-General's plan of distributing the "comparatively small" allowances to which he refers without some definite instructions regarding their dispersal based upon reliable investigation of needs and conditions. If the heavy expense of establishing free delivery in all towns and villages in a thorough and comprehensive manner precludes such a step, it then remains to be seen just how, after all, discrimination would be affected. Nevertheless, something is better than nothing, as the establishing of the Rural Free Deliveries has shown us, and perhaps the Post-Office Department, if it succeeds in obtaining the appropriation, will find a way to ensure its being spent honestly and intelligently.

THE NEW CHILD BUREAU, DEPARTMENT OF COMMERCE AND LABOR.

THE action of the Senate of the United States in passing a bill for the creation of a Children's Bureau, in the Department of Commerce and Labor, is a significant step. The fight of the women of this country to bring thousands of child workers in the United States under the care of Uncle Sam was led by Jane Addams, the noted Chicago social worker. Miss Addams is to be thoroughly congratulated upon her efforts in this action, having borne the brunt of the work which has been done in behalf of Federal legislation. It is mainly due to her activity that the fight has been won in the upper branch of Congress. The bill just passed authorized the newly created bureau to collect information pertaining to the welfare of children and child-life. Special authority is to be given to make it possible to investigate questions of infant mortality, the birth rate, orphanage, juvenile courts, desertion, diseases, accidents, occupation, legislation and kindred subjects.

HOME INDUSTRIAL EXHIBITION

A NEW movement is on foot throughout American industrial cities towards the establishment of annual exhibitions of local industrial accomplishments. The Newark, New Jersey, Industrial Exposition under the auspices of the Newark Board of Trade to be held in May will be watched with interest. Much good can be accomplished through such exhibitions, not only in the matter of civic publicity, but also (especially in the larger cities) in calling the attention of citizens themselves to their numerous local resources.



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THE White Self-Starting Six-Cylinder Sixty presents a striking contrast to the conventional types of six-cylinder motor cars. This car has been produced to meet the heretofore unfilled demand for a powerful six-cylinder car that is both economical in operation and simple in construction and control.

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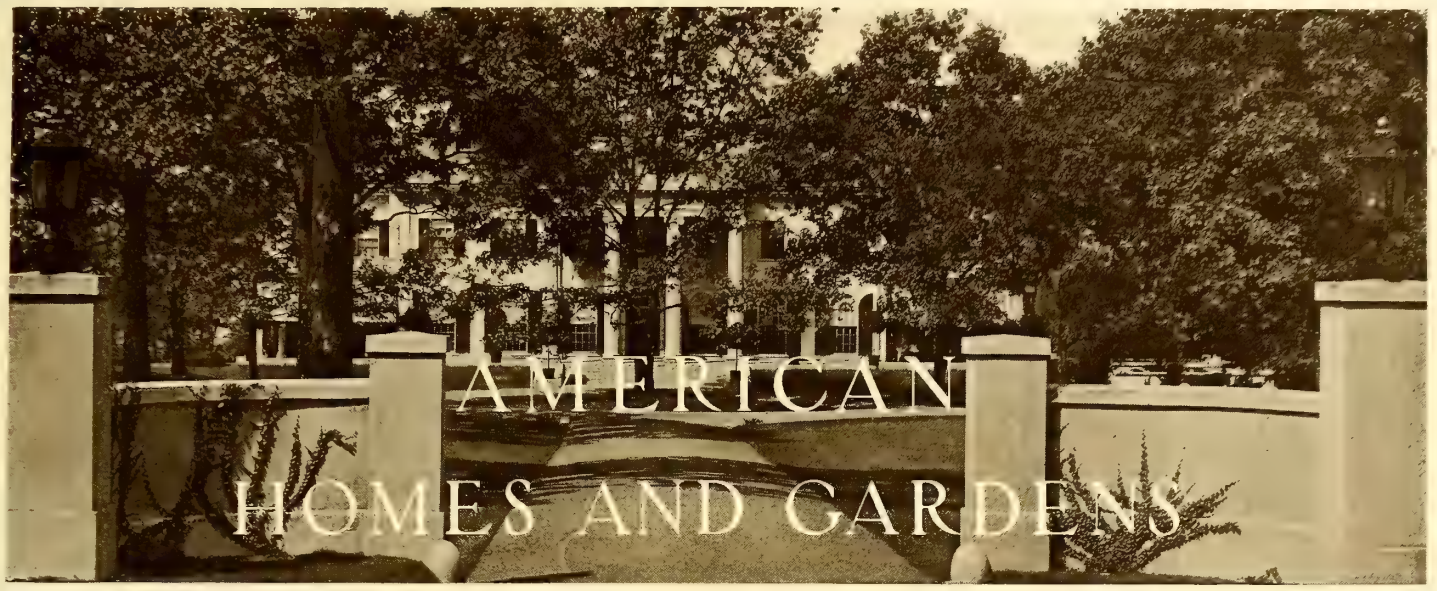

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MUNN & CO., Inc.
Publishers
361 Broadway, New York

FREDERICK CONVERSE BEACH
Secretary and Treasurer

Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

Copyright 1912 by Munn & Co., Inc. Registered in United States Patent Office. Entered as second-class matter June 15, 1905, at the Post Office at New York, N. Y., under the Act of Congress of March 3, 1879. The Editor will be pleased to consider all contributions, but "American Homes and Gardens" will not hold itself responsible for manuscripts and photographs submitted

Photograph by Nathan R. Graves

The incomparable beauty of the Rose adds exquisite charm to every garden, perennial delight to every nook wherein its loveliness is found

AMERICAN HOMES AND GARDENS

Volume IX — April, 1912 — Number 4

The Garden of Roses

By F. F. Rockwell

Photographs by Nathan R. Graves

NEVER before has the Queen of Flowers been so available to the million, so pre-eminently the heritage of the everyday gardener. Other flowers have been "boomed," become for a while the popular fad and dropped again from the limelight, but the glorious Rose has quietly kept its place as the most prized and most beloved of all the fair competitors in the garden; nor is it likely ever to be displaced. The wealthy may abandon it for their hothouse Orchids, grown by experts, but it is bound by a thousand ties of tradition, poetry and sentiment to the hearts of the many. No real lover of flowers would ever be satisfied to let "the gardener" have all the care of bringing them to maturity, any more than the artist would think of hiring someone to paint his pictures.

For the garden of the real lover of flowers—*any* lover of flowers—modern Roses are the unequaled favorites, the greatest satisfaction givers. "But why modern Roses?" you may ask. The answer is interesting. The Rose has undergone a somewhat singular development. When Rose growing was almost entirely in the hands of the professional private gardeners and the flowers were produced solely to be cut for the table and other interior decorative uses, it was natural that the development of a large, firm, long-keeping bud was the thing striven for. The individual flower was the whole thing; the form of the bush, or its healthiness, or its hardiness, or the length of freedom of its blooming period were then matters of small consequence. The private gardener engaged by the estate did not have to pay the gardening bills, and, perhaps, found it possible to go into his Rose-growing experiments without restriction. Now, generally speaking, the old order of things is more or less changed about.

Souvenir de Maria Zayas. Carmine

The garden Rose of to-day has been bred for the beauty of its plant-form as well as for that of its flower; likewise it is now being bred for health, for hardiness, for freedom and continuity of bloom. As a result, the hybridizers have given us some wonderful specimens. Through all of the most beautiful, most satiny

A corner of Miss Helen Gould's Rose garden, at Irvington, New York

shades of red, of yellow, pink, crimson and white (full and open, four to five inches across, like Frau Karl Druschki, as in the Rambler types), our Roses of to-day seem to run the perfect scale of beauty in both form and color. Particular or blind indeed must be he who cannot find somewhere among their galaxy his ideal of material loveliness. The subtle and varied perfumes of the Rose, making it indeed the flower paramount of poetry, lifts its contemplation into that strange realm of mystic song and music to which it seems related.

An attractive Fimbriata Rose, white and pink

But we must grow Roses! Knowing that they are the most beautiful of flowers, "How shall we succeed with them?" is a question one eagerly asks of the experienced horticulturist. In the first place, we must look a little into the characteristics of the Rose, for we must see wherein the types differ and how we can best employ each. Modern garden Roses may practically be considered in three general classes:

HYBRID PERPETUALS
HYBRID TEAS
HARDY CLIMBERS

I know the botanist will here raise his hand and say there are many more classes, that the present limitation is not scientific, etc.; but I must request him politely to be seated and keep quiet for a bit, for my sole purpose is to present information to the lay gardener that will enable him to go out and *grow Roses;* and as long as he procures good flowers for his efforts he will not, as a rule, care whether they are from a Hybrid China X Rosa Wichuraiana or not.

THE HYBRID PERPETUALS

These are the hardiest of the bush garden Roses, and for this reason the most reliable for general cultivation. The term "perpetual" is apt to be misleading to the beginner, as it does *not* mean "ever-blooming." Their heaviest crop of flowers is borne in June, lasting to the first week in July. Again in Autumn there will be an occasional flower. A few of the best of the Hybrid Perpetuals produce flowers as beautiful as those of the "Tea" class.

Diagram of dormant roots

THE HYBRID TEAS

These now constitute by far the most important group for Rose gardeners, where they will be cared for. They are, north of Philadelphia, what might be termed semi-hardy—that is, they need Winter protection (which is not at all a difficult matter) to come through hard Winters safely. Some are much hardier than others, and this is a good point to keep in mind when making selections. The Hybrid Teas are, for the most part, results of crosses between the Teas and the June-flowering Hybrid Perpetuals. From the latter parents they have taken the good qualities of hardiness and robustness of growth. From the former, the free and continuous flowering habit, the blossoms being produced from early June until August, and again from September until early frosts. The Rose specialists have given by far the greater part of their attention during the last twenty-five years to this class of Roses, and it now contains every color known in a Rose and many beautiful shades not to be found elsewhere, and those of the grandest size and most attractive form are to be found among them. In habit of growth they do not average quite as strong as the Hybrid Perpetuals, but are perfectly suited to all practical purposes.

THE HARDY CLIMBERS

These are a comparatively new class of the type of that universally known and now universal favorite, Crimson Rambler. They are extremely vigorous in growth and very hardy, most of them standing without protection very

severe Winters. The flowers of the Ramblers, while comparatively small, are borne in huge clusters or trusses, which give a most striking effect. Some of the newer climbers, however, such as Dr. Van Fleet and Climbing American Beauty, bear flowers several inches across and on long stems, as suitable for cutting as the garden sorts. Then there are the climbing semi-doubles and singles, in numerous shades and showing the beautiful golden stamens, which many gardeners prefer to the double sorts; certainly they are among the most graceful of Roses. While the flowers of the hardy climbers are borne freely, as a rule there is but one flowering period, though some of the newer sorts show the ever-blooming tendency. It is probably only a question of time until this will be bred in them to a much greater extent. As they are now, however, they are worthy a place somewhere around the home of every lover of flowers, and that means everywhere.

What varieties will give the greatest satisfaction for different purposes and periods?

It will be readily seen from the foregoing that this depends entirely upon circumstances. If you want a Rose garden that will furnish good flowers for cutting, as well as being ornaments, but want it so ironclad that you will have to give it the least possible care, use the Hardy Perpetuals. If, on the other hand, you are willing to look out for your plants and attend to giving them protection in the late Fall, then you can have the most beautiful of Roses nearly all Summer long, and most of your choices will be from the Hybrid Teas. It may be, however, that you do not want or cannot have a Rose garden at all—just Roses! Then you should go to the new Hardy Climbers, where you will find sorts for both cutting and decorative utility, which will thrive with the least care and under adverse conditions. Think the situation over carefully before you buy, on the strength of the suggestions offered here.

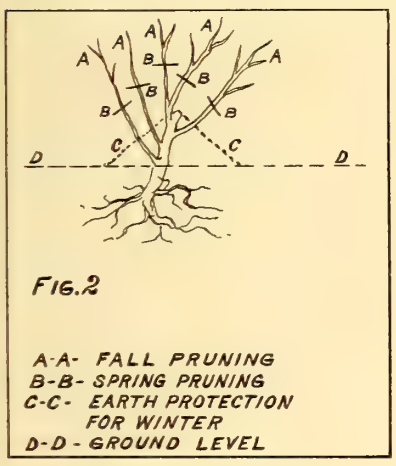


Diagram of pruning

A terrace overhung with fragrant Dorothy Perkins Roses

PLANNING THE ROSE GARDEN

The Rose garden should be carefully planned. As in making selections, so also in laying out the garden—you should have a definite purpose to begin with. Are your Roses to be used for cut flowers only, or to be enjoyed as they grow, with the Rose garden itself a thing of beauty in the landscape? Again, it may be desirable to use them simply to decorate the house with, as a relief to a bare wall, a covering for a pillar or trellis, or some spot yet uncovered. The accompanying Rose garden plan may prove of service.

THE LOCATION

The making of the garden is one of the most important factors in success with Roses. The location for it should be, if possible, upon high ground, where the air currents pass freely. This will afford natural protection against both frost and mildew. It should be, if possible, sheltered by a building, shed, or wall from the cold northwest winds, which do more harm than the cold itself. It should not be in the shade, and above all, not near the bases of large trees, whose thieving roots cannot be kept out of the rich Rose soil. With these rules stated, comes the matter of soil.

THE SOIL

The soil should be heavy, a "clay loam" if possible—especially is this true for the garden bush varieties. Some of the climbers will do well on a light sandy soil, but do not prefer it. A light soil may be made suitable by the addition of heavy loam or of muck. Two years ago I set out a large bed of Hybrid Perpetuals and Hybrid Teas in soil that

La Detroit, strong, hardy and ever-blooming

Kaiserin Augusta Victoria Rose

The White Dawson Rose

was practically pure muck taken from the bottom of a shallow pond, and enriched with cow manure, and they have done excellently. If you have to choose between heavy soil in a low spot and light soil well elevated, take the latter, and by adding heavy soil put it into shape.

The drainage must be efficient. With poor drainage you cannot have good Roses, no matter how much care you may take of them otherwise. If the drainage is not good naturally—which will usually be shown by a sandy or gravelly subsoil—it must be made good. This can usually be accomplished by digging the bed out to a depth of two or three feet, loosening up with a pick the soil below this, and filling in eight to twelve inches with broken stone, brick, old plaster or some similiar material. Over this put inverted sod or strawy manure to keep the dirt from working down into the cracks.

FERTILIZING

The soil for the beds should be thoroughly enriched. The best thing for this purpose is well-decayed barnyard manure, though mixed manure will do. It should be thoroughly incorporated into the lower part of the made soil in the beds, but the top eight to twelve inches should be of clean, fine loam, without fresh manure, in order that the roots may be induced to strike down. Ashes, bone (preferably meal and flour mixed), and nitrate of soda make a good mixture for top dressing and working into the soil. Mix in the proportion of, say, ten pounds nitrate of soda twenty of bone and twenty of ashes, and sow thinly, just enough to coat the surface over thoroughly, then work in with a fork or rake. If just before a rain or a thorough watering, the result will be perceptible very quickly. If the bed is up in good condition, the soda alone will give most astonishing results.

The well-known Crimson Rambler

BEDS AND PATHS

The "beds" may be three to five feet wide; it is best to keep them narrow enough so that they can be tended and the flowers gathered without having to step upon the soil. The Hybrid Perpetuals should be put about two feet apart, and the Hybrid Teas eighteen inches to two feet, according to habit of growth, so the proper width in any case may readily be figured out.

The paths may be of grass, gravel or cinders, as taste or convenience may dictate. Grass has the disadvantage of being wet very frequently in the early morning, which is the best time to cut the flowers. The edgings may be made permanent, of small stones or something similar, but personally I prefer a border of box or, in localities where that kills out, of some low annual, such as Sweet Allysum.

PLANTING

The setting of the plants should be done carefully and thoroughly. While planting is sometimes done in the Fall, from Philadelphia north, Spring planting will, as a rule, give the best results. The Hybrid Perpetuals can be set out as soon as the ground is dry enough to work, but the Hybrid Teas and Climbers had better be kept back until after the late frosts, say until about the mid-

Belle Siebrecht Rose, deep pink

Caroline Testout Rose, satiny pink

dle of April or first of May, according to the locality and the season.

Roses are set out in two ways—as "dormant roots," which usually are not supplied after April 15th, and started in pots. Good results can be had from either, but the latter, all things considered, is more satisfactory. If dormant roots are ordered, arrangements should be made to plant them as soon as received if possible. If for any reason they have to be held, dig a shallow trench and pack them in this, upright, with the roots covered with fine soil, to keep them from dying out. In either case, as soon as the plants are received the dormant roots should be placed for several hours in a pail of water. When setting them out in the beds, keep the roots wrapped in damp moss, or "puddle" them by dipping into liquid mud before starting out, to obtain the best results.

The potted plants, if they cannot be set out immediately upon arrival, may be kept anywhere in the light where they are protected from frost. The first thing to observe in planting is to see that the "union" where the bud has been joined to the root stock is put about two and a half inches below the level of the soil. This is very important, because by far the biggest part of the Roses sent out are "grafted"—that is, a little slip of the variety wanted is joined onto the root of a strong-growing sort. The advantage of this process is that it gives plants more vigor, capable of giving more and finer blooms, frequently earlier blooming, and in the case of tender varieties, such as many of the Hybrid Teas, more hardy and long-lived than those on their own roots. The one disadvantage is that they have a tendency to throw up worthless "suckers" from the root-stock, especially if not planted deep enough. This is not serious, however, as all such can be readily distinguished from the fact that they have seven small leaves instead of the usual five, and if removed on sight will cause no trouble.

In setting the Roses in the soil, be sure to make the holes large enough to take all the roots without bending or crowding. If any are broken or torn, they should be cut off clean at the point of fracture. If the soil in the garden is at all lumpy or coarse, some sifted fine soil should be provided for filling in the holes, for no air spaces should be left about the roots.

Frau Karl Druschki Rose, brilliant white

If the soil is at all dry, water the plants while setting—that is, after about half the soil has been filled in give a good watering, and let this soak in before putting in the rest of the soil. The most important particular in planting, however, is to get the plants in *firmly*. Probably more Roses fail from this cause than from any other. Pack the soil in as firmly as possible with the hands about the roots—which should be spread out nearly laterally—and then press in with the whole body's weight by placing a foot on either side of the stem. A well-known nurseryman relates the story of a woman who wrote him complaining that all her beautiful Rose plants had died, except one, which her husband had accidentally stepped on after planting.

If dormant roots have been used, go over them now with the pruning shears and cut back each cane to three or four eyes or buds, being careful to cut about a quarter of an inch above an outside bud, that the plant may develop with an open center. (See the accompanying illustration.)

After planting, the bed should be carefully finished off with a steel rake, so that the surface is left fine and even. If the bed has been thoroughly prepared and the planting carefully done, the battle is practically won, but some care is necessary through the entire Summer.

ROSE-CULTURE HINTS

First of all, the beds should be frequently gone over—every two weeks or oftener in dry weather—to maintain a soil mulch to preserve all the moisture possible. This surface cultivation should *always* be given immediately after a hard rain. If this is kept up, watering will not be necessary except in extreme drouth. These cultivations should be shallow—not more than about two inches deep—and a flat-tined fork or prong hoe is the best tool to use. Secondly, keep the flowers cut! Take the opening buds in the morning, every day or every other day. If they are wanted on the bushes, cut off all faded blooms every day or two. In cutting, always take the stems a little above an outside bud. The stems may be cut as long as desired, and at least two eyes should be taken with the flower. During the blooming period the plants will be greatly helped by additional fertilization. This may be given in the formula mentioned above, or in the immediate acting form of liquid manure. To prepare this get a tight barrel—a heavy, strong "pork" barrel can be had of the grocer or the butcher for about thirty-five cents. Put this in a convenient place—a good way is to sink it a third to half its depth into the ground—and put into it about half a bushel of manure, preferably from cows. Renew from time to time and keep the barrel full of water. Do not apply the dry soil without giving it a watering with the hose is a needed reminder.

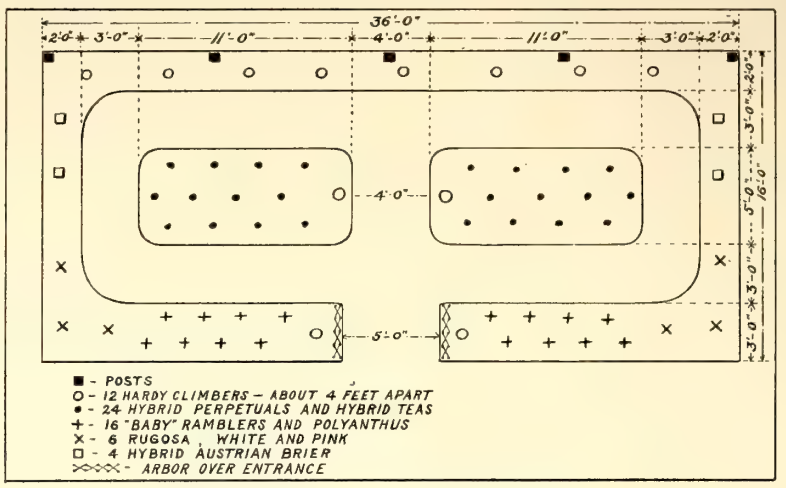


Diagram plan of a small Rose garden

PROTECTION

After the first blooming season is over a "mulch" may be used instead of the shallow cultivation, if desired. This should be of fine old manure, which will not bake or form hard lumps, put on three or four inches thick. Do not continue the extra feeding in the Fall, as the canes should be allowed to "ripen" as much as possible before cold weather, especially those of the ever-blooming classes.

Hybrid Teas and other sorts not as hardy as the Hybrid Perpetuals and Climbers should be given Winter protection north of Philadelphia. The idea that this protection is to keep frost away from the plants should be at once discarded; it is to keep them from alternate freezing and thawing, from starting too early in the Spring, and to keep off cold north minds during mid-Winter.

Either dry manure or leaves may be used for this purpose. One of the neatest, best and easiest mulches to use is dry leaves, held in place by a twelve or eighteen-inch strip of chicken wire run around the outside of the bed and supported by small stakes. If necessary, a few pine boughs may be placed over the top to keep them from blowing. This protection should be put on after the first hard frost—you see, the idea is not to prevent the roots from freezing, but to *keep* them frozen. In colder climates, north of New York, a very good plan with the Hybrid Teas and Teas is to draw dry earth up around the base of each plant late in the Fall. This serves not only to thoroughly protect the lower buds, but to shed off any surplus water, which, if it accumulates and freezes around the base of the plant, invariably leads to doing great damage. The Winter mulch should be left on until after the severe frosts of Spring, and then, beginning about April 1st, remove gradually. Any old manure or leaves that are too rotted to be picked up readily may be dug into the soil with the new dressing of manure, which should be dug into the soil every Spring after the Spring pruning.

PRUNING

The matter of pruning is one of the most important and least understood of all Rose operations. We have already spoken of pruning dormant stock after planting. After blooming Hybrid Perpetuals and Hybrid Teas should be cut back a third to one half. Sometimes the bush Roses will send up thick, pithy, rapidly-grown stalks, resembling Raspberry canes, late in the Fall, and these are usually worthless and best cut off. Any canes that are top-heavy or so long as to be likely to whip in the wind should also be shortened back. The main pruning for all bush Roses, however, should be given in the Spring. Begin with the hardiest sorts in March. All dead wood and weak shoots should be cut out first. The degree to which the remaining shoots should be cut back will depend on whether you prefer extra quality to abundance of bloom or not. If you do, cut them all back to within three or four eyes of the main stem. Otherwise, cut back to six to ten eyes. Where a tall bush is wanted, or one to grow against a walk, for instance, leave three or four feet tall. As a rule, strong-growing plants should not be cut down so severely as the least robust sorts.

In April, as their covering is removed and as soon as the buds begin to swell, prune the Hybrid Teas and other tenderer sorts. Cut out all dead or weak wood, as with the Hybrid Perpetuals. Twice the number of eyes may be left that would be proper for the hardy sorts. The Hardy Climbers are best given their severest pruning just after the flowering period, cutting out most of the wood that is three years old. The object in doing it at this time is to conserve the strength of the plant for developing the newer growth for next year's blossoms. (In this the Climbers differ from the bush Roses, which do their prettiest on new wood of the present season's growth.) Any weak, broken or Winter-killed shoots should be cut out in the Spring.

INSECT PESTS

The well-cared-for Rose garden is not likely to be bothered by insect or disease enemies. If any trouble is experienced, spray frequently with Bordeaux Arsenate of Lead mixture, which protects against both classes of enemies. If the green fly (aphis) becomes troublesome, use aphine or some form of tobacco.

VARIETIES

The varieties of Roses are so numerous that lack of space makes it impossible to attempt any lengthy description here. I name below a few of the best in each class. In making your selections, get two or three of the best catalogues and go over them carefully, keeping in mind that size and color of bloom are not the only qualities required in a satisfactory garden Rose. If your selections are made from the list below, you may know that you are getting sorts that have given excellent general satisfaction. This list comprising some fifty sorts, is meant to serve merely as a guide.

The Hybrid Perpetuals—These are the hardiest of the garden Roses. The few varieties named below are all splendid flowers for cutting: *Frau Karl Druschki,* ideal white Rose, and one of the best of all garden Roses; *General Jacqueminot,* brilliant scarlet, the old favorite "Jack Rose"; *Paul Neyron,* dark Rose, one of the largest of all; *Ulrich Brunner,* bright cherry red, very popular; *George Arends,* new soft pink, splendid in every way; *Gloire de Chedane Guinoisseau,* new bright red, extra fine; *Magna Charta,* bright pink, an old favorite.

The Hybrid Teas—This is called the "hardy ever-blooming" class; when given protection, the most satisfactory for garden work: *Robert Huey,* one of the very finest and largest bright reds, very vigorous; *Otto Von Bismarck,* soft silver-pink; *The Lyon,* deep coral pink verging to yellow, one of the most beautiful of all Roses; *White Killarney,* one of the best pure whites; *Gruss au Teplitz,* reddest of all red Roses, very strong; *Richmond,* brilliant crimson, very popular; *La France,* clear satiny pink, one of the world's universal favorites; *Mme. Segond Weber,* soft salmon pink; *Killarney,* brilliant pink, splendid flower, very free bloomer and extra hardy; *Harry Kirk,* deep sulphur yellow; *Melody,* a splendid new yellow; *Cardinal,* a rich cardinal red, very fine; *General McArthur,* vivid crimson scarlet, one of the brightest; *Burbank,* rich pink, resembling the old favorite Hermosa, free and continuous bloomer; *Kaiserin Augusta Victoria,* a soft pearly white, very fragrant, strong grower.

The Teas—These are tenderer than the Hybrid Teas, but can be brought through with care. Very sweet scented: *Perle des Jardins,* beautiful rich yellow; *Papa Goutier,* dark crimson; *Souvenir de Pierre Notting,* fine canary yellow; *The Bride,* pure white; *Maman Cochet,* deep rose-pink, extra fine; *White Maman Cochet,* pure white; *Bon Silene,* bright rose, old favorite and extra sweet scented; *Catherine Mermet,* beautiful soft rose.

Hardy Climbers—Great successes have recently been achieved in this class, which is undoubtedly becoming more popular every year, and deservedly so: *American Pillar,* enormous single flowers, lovely pink; *Climbing American Beauty,* a really fine novelty, splendid flowers three to four inches across; *Christine Wright,* ever-blooming tendencies; *Excelsa,* the finest of the Crimson Rambler class; *Tansendschön* ("Thousand Beauties"), flowers open soft pink, but change to several shades, whence the name, rampant grower and has become very popular; *Veilchenblau,* the so-called "blue" Rose, the nearest to a blue so far produced; *Flower of Fairfield,* resembles Crimson Rambler, but is "ever-blooming"; *Hiawatha,* single, brilliant crimson, very beautiful; *Dorothy Perkins,* soft shell-pink, very fragrant, extra fine; *White Dorothy Perkins,* pure white, fine; *Yellow Rambler,* semi-double, fragrant, yellow flower; *Dr. W. Van Fleet,* beautiful shell-pink flowers, over four inches across, borne on long stems, bears a second crop in Autumn, one of the grandest Roses yet developed; *Silver Moon,* semi-double, very large silver-white blossoms, partly revealing the golden stamens, ever-blooming tendencies, foliage especially beautiful; *Lady Gay,* very popular on account of the beautiful delicate cerise-pink shade of its flowers, which change to creamy white; *Wichmoss,* a climbing "moss" Rose, semi-double, light bluish-pink, and fragrant, very unique and beautiful.

Hybrid Briers—These are hardy semi-climbing Roses, very beautiful and fragrant. Prune only old and weak

(*Continued on page 144*)

A bank of such Roses against the house is an ideal arrangement for the small premises

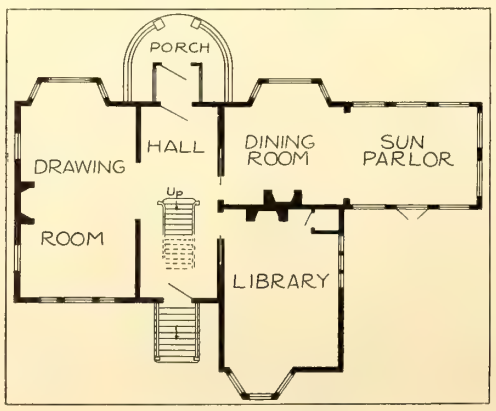
The house of Mr. and Mrs. William T. Callaway, at Wyoming, New Jersey, a home unique in northern architecture

A New Jersey House, the Prototype of a Famous Virginia Manor

By Mary W. Mount
Photographs by T. C. Turner

WHERE Vauxhall Mountain rises steeply beyond the last spur of the Orange Range, in Essex County, New Jersey, one finds spreading upon its southern slope the beautiful picture of a town that seems to have been translated from the Virginia of a bygone century and set here within the frame of wooded mountainside and verdant meadowlands. If one were to draw rein within its rose-girt bridlepath he would fancy himself in Alexandria, amid the hills of Virginia, instead of in Wyoming, upon Vauxhall Mountain, and he would undoubtedly feel impelled to dismount before the house herein described—a house that follows closely the lines of the Carlyle mansion at Alexandria, Virginia, where General Washington was wont to lodge.

Nature has lent itself to this reproduction of one of Virginia's most famous mansions, and furnishes for its site a slope so steep that, from the back, this modern Carlyle house has all the appearance of standing upon a fortress, such as formed the foundation for its prototype. Within vine-draped, flower-bordered walls of gray, a postern gate stands hospitably ajar. And when it has swung more widely to welcome the coming guest within a blossom-grown terrace and so into a wide Colonial hall, there comes the realization that where architect has left off with outer semblance of the old-time Carlyle house, the mistress of this newer one has wrought within it an atmosphere that inspires the whole with the spirit of Colonial times.



The ground-floor plan

Here is evident the enthusiasm of a collector with that discriminating taste born of knowledge and experience, for both Mr. and Mrs. William T. Callaway, for whom this residence was built, keenly enjoy the quest for antique furniture of the later Georgian period, and have gathered, here and abroad, treasures of Adam, Sheraton, Hepplewhite and Chippendale styles in order that old actualities in furnishings may pervade a modern reproduction of the old historic dwelling, gracing a favored spot.

One is pleasantly impressed with all this upon entering the spacious hall, where cream-white Colonial balustrades curve outward in a graceful spread at the bottom of the stairs, and an old mahogany settle invites the visitor to rest opposite a fine claw-foot cabinet of like period. Wide doorways open on one side into the drawing-room, and on the other into the library and the dining-room, with a long vista before one of the outdoor living-room beyond, which is glass-enclosed during the Winter.

Within the drawing-room the heart of the collector is stirred to enthusiasm—if not, indeed, to envy—for upon a Colonial Adam mantel of white, with panoply of antique brasses in the fireplace, stands a clock that Sheraton himself designed, its beauty reflected in a genuine Adam mirror.

Hepplewhite and Sheraton are handsomely represented in this house, but the famous Robert Adam is responsible for most of the furniture in the long room, as the flat table-like desk, exquisitely modeled and with three drawers in each side; a cabinet that is an inspiration in grace of line and proportions, and which is matched by two duplicates of modern make; a sofa, upholstered in rich striped silk of a delicate Adam green and pearl-white; such mirrors and wall-brackets for lights as Adam was master at fashioning, companied by chairs of his design, a Sheraton inlaid consul table, and a wonderful sofa of the same period, with swanheads curved gracefully over each end, and which is a trophy discovered by Mrs. Callaway in an obscure English village shop.

The library is one of the most attractive rooms

An interesting corner of the hallway

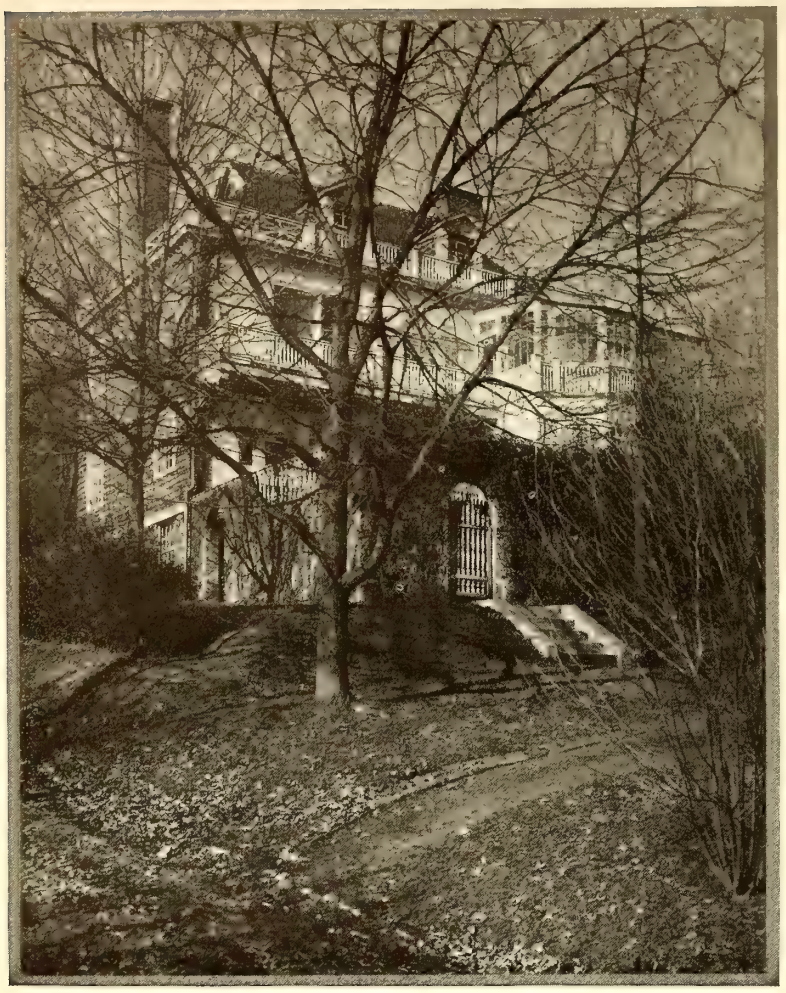
Not less beautiful than the antiques, although, perhaps, lacking a certain indefinable softness of lustre which age imparts to old mahogany, are a table and several chairs which are exact reproductions of pieces owned by Independence Hall, Philadelphia, and for the copying of which a permit had to be obtained, although these pieces have since been reproduced more generally, some of which were illustrated in AMERICAN HOMES AND GARDENS for January, 1912.

In keeping with the furniture are the ornaments and the bric-a-brac, while the ample cabinets contain a wealth of antique loveliness, Oriental, European and Colonial, ranging from rare porcelains, curios and examples of the silversmiths' and jewelers' art to rich pieces of antique embroidery and quaint jeweled combs that held the tresses of belles of bygone centuries.

The library uncovers to the sight of the visitor more curios in a long, many-windowed room, where bookcases of the late Georgian period are supplemented by modern imitations, and where rare illuminated volumes of the past touch bindings with romances of the present. Beneath a spread of windows that overlook lawn and grove and a garden sloping to wooded mountain-side, is placed a Sheraton sofa

The dining-room is bright and sunny

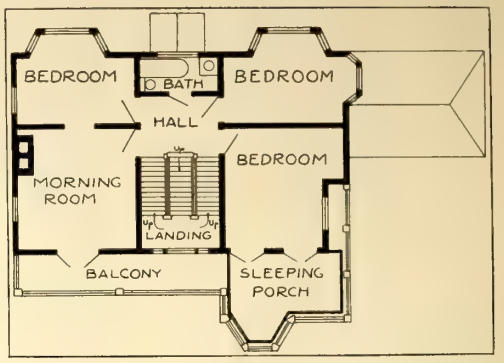
The stairs ascend from the center of the hall



A sense of seclusion is given the house by its walled entrances

of unusual rarity. In the top of the back is carved a shell, and the framework swells in graceful lines that please and refresh the eye even as they invite to relaxation the body. This sofa has its double in one which occupies an honored place in Washington's headquarters at Morristown. In the enclosed end of the library a mantelpiece of very beautiful Colonial type imparts the delicacy of Colonial outline and white woodwork to the room and, at the same time, diffuses the glow of rare brasses; of an old English brazier and candlesticks, supplemented by the bloom of antique copper candlesticks from Vernona, Italy. Here and there in this spacious room of easy chairs and hospitably large center-table, the warm gleam of old mahogany finds a sparkling complement where light falls upon some rare piece of brass or silver; a touch of contrasting color in the Brower pottery and in other bits of faïence, and, so surrounded by objects mellowed in the crucible of Time, it diffuses an essence of restfulness and inspires the feeling that in entering upon this scene of the tranquil past one leaves without the threshold the hurry of the present.

Subtly the impression is conveyed of an harmonious arrangement of the draperies at windows and doorways. Of rich and rare simplicity, they possess the added charm of unobtrusively supplying a needed accent of color here, a softness of outline there, without attracting attention to themselves. The leading from cream-white paneling and finish upon the drawing-room floor to wainscoting in squares that cover the entire wall of the upper hall where twin stairways converge, suggests an effect of ascending to greater delicacy and increasing light in the arrangement of the floor above.



Second-story plan

Just at the foot of these stairs, next to the library, is a dining-room that represents enchanted land to a collector, so full is it of antiques in furniture, silver, china and cut glass. It is an oblong room with windows looking upon the shrubbery-filled terrace in front of the house and the forest-covered slope of Vauxhall Mountain beyond, and opening upon the large outdoor living-room, which, with its glass enclosure, forms a delightful sunroom in the winter season. The entrance to this living-room is flanked on one side by a glass-paned Hepplewhite cabinet filled with crystal, and on the other by another cabinet, of the same make, containing rarities in china and in silver. A graceful little three-legged tabouret shares honors with a serving table of the same style of Hepplewhite, and the least impressionable person could not remain insensible to the charm exerted by the beautifully modeled oval dining-table with its complement of fiddle-backed chairs that represent probably the most attractive type of all chairs of the Georgian period.

Against the wall opposite the sunroom stands one of Sheraton's finest examples of a sideboard. Swelling sides conceal curious wine bottle drawers; inlaid front panels exhibit an urn decoration, and the whole has been exquisitely adorned with paintings by Angelica Kauffman and Amelia Kutner. Not the smallest attraction about this interesting sideboard is its treasure of fine Sheffield plate, the rare crystal and cut glass upon it. From this one's gaze naturally turns to an Elizabethan shelf against the wall on which are wonderful Bogardus and Spode plates, a Sunderland cup of the date 1793, examples of old Chelsea, Staffordshire, Wedgewood and ancient French ware, articles of which are repeated elsewhere in the dining-room, and rivaled by quaint old bow china figures. Beverly Betts candlesticks, of early Nieuw Yorke days, and interesting old pewter upon the high Colonial mantel. One discovers the charm of novelty combined with a high decorative quality in

The gateway in the wall reminds one of some old-world nook

the old French pewter armorial plates and the breastplate of a Wiswall ancestor of Mrs. Callaway's who was, for fifty years, Proctor of King's College before it became Columbia University.

That antique hot-water plates of hand-wrought metal also possess decorative value is demonstrated by one which companies with rare plates of willow-ware and Spode; with artistic patterns of old silver from the English ancestral halls of Mr. Callaway, with fine old Sèvres and many a souvenir in gold, silver and faïence, from the collection of one of the owner's ancestors. Not the least interesting part of this collection is a china-closet full of white and gold china, made in the early days when cups were ample in dimensions, china fine and graceful in pattern and gold laid on thickly, as one finds it in genuine old pieces of the sort. Many of these pieces are inscribed with family names and armorial bearings and rival in attractiveness wine bottles and tall glasses and goblets, dishes and quaint celery glasses of cut glass that show no hint, save in form and beauty, that they have adorned tables laid centuries ago, when tablecloths were designated "carpets" and Sheffield plate represented all perfection in the silversmith's art.

The Callaway house as seen from the roadway

"All collectors," the hostess of this house will tell you, "like to get different pieces, and then, too, it would be hard to match one make of antique furniture throughout a house, and Adam, Hepplewhite, Sheraton and Chippendale can be disposed so as to harmonize beautifully in a home." This harmony is apparent throughout the Callaway residence, for one ascends to the second floor to find four large bedrooms opening upon a wide hall and all filled with such masterpieces of the four great cabinet makers of the Georgian period as the Carlyle house in Alexandria might appropriately have adorned itself with from England's treasures before the Revolution.

To one bedroom Sheraton has contributed a bureau and a cabinet; Hepplewhite a dainty dressing table with a cricket

The addition of the sunroom has in no manner detracted from the interesting lines of the house as seen from the garden side

before it; Chippendale a mirror, and chairs associated with some from the cabinet shops of the Adam brothers. To another bedroom Adam and early Colonial coypists have been chief contributors in fine representations of bureaus, dressing-tables, highboys, lowboys and sofas of that period, while one room contains a fascinating little work-table made by Sheraton, with a lock in each of its two swelling-front drawers and also in a sliding frame below the drawers, which is intended to support a work-bag of sufficiently rich material.

It would, indeed, be difficult to find an exact replica of an historic Colonial dwelling so replete with all that makes for a revival of that period in furnishing and so fully carries out the artistic element in a Colonial-Adam interior which, before all things, emphasizes grace and lightness in form and effect together with a combination of delicacy and richness, in the production of which Robert Adam was past-master and has furnished the pattern for architects and decorators ever since.

Apparent to the most casual observer is the fact that the Callaway residence at Wyoming has been furnished by one imbued with the true spirit of the period represented, and that the paintings, both ancient and modern, have been selected by Mr. Callaway with the judgment of a connoisseur in matters of art, but it becomes also apparent that the task of the architect has been one more difficult of achievement. While the back of the house faithfully represents that historic place in which the meeting of six Colonial governors with General Braddock, termed "the Congress of Alexandria," provoked a counter convention with George Washington in the chair and the discontent which led to the Revolution twenty years later, the front entrance loses some of the historic environment in that it opens upon a terrace below the level of the street. Instead of ascending to the entrance one descends a flight of steps placed against a picturesque stone parapet that supports the hollowed steep of the mountain. Vines and evergreen shrubbery, with flowering plants in season, make beautiful this terrace before the picturesque Colonial porch, and the effect is heightened by an extension of the terrace beyond the long outdoor living-room to where a formal garden has been laid out within a hollow of the hill. To effect this garden Mr. Callaway had a house removed from an eminence and the mountainside hollowed out to the level of his terrace, and here, sheltered from north winds and warmed by sunshine, roses and perennials smile early at the Spring and bid tardy farewell to Autumn. A line of cedars to the south of this formal garden enhances its picturesque effect and shields from observation an attractive garage on the lawn, which slopes down the hillside to flower and vegetable gardens at the foot of the mountain.

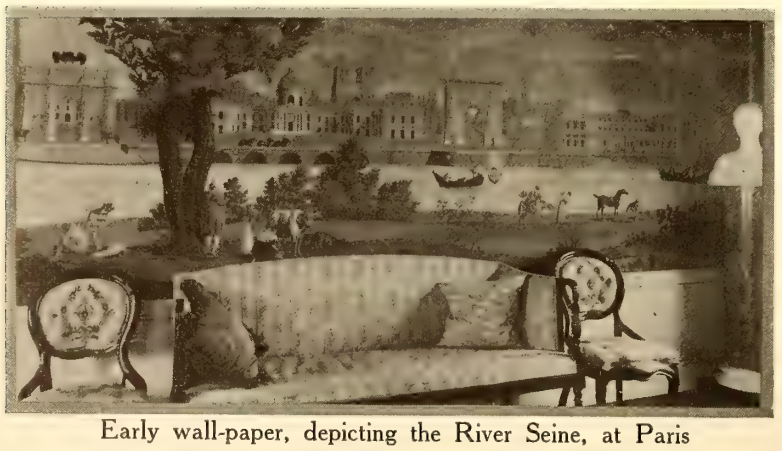
From this point of vantage one looks upon a scene of Virginian space and plenty, crowned by a mansion, the silver-gray roofs of which seem to bear the tone of mellowed age.

Some Old-Time Wall-Papers

By Winifred Fales
Photographs by Mary H. Northend

AMONG all the quaint relics of our bygone Colonial period nothing exceeds in romantic interest a study of the landscape papers which were in popular use upon the walls. Particularly is this true at the present time, which seems to have brought us a revival of that particular form of decoration. The new landscape papers suggest the old ones, but are unlike in tone and character, except in cases where some old specimen has been taken as a model and copied with faithful exactness. Such instances are rare. Our best examples of real Colonial landscape papers date from the twenty-five years immediately prior to the Revolution and perhaps fifty years succeeding.

Such paper is found in the old Lee mansion in Marblehead, now used by the Marblehead Historical Society. This building was erected in 1760 by Jeremiah Lee, a Revolutionary patriot. The wall-papers were made to order in England, by accurate measurement, to fit the required wall space. They are in a fine state of preservation at the present day. When the panel between the two front windows in the upper hall peeled off, a few years ago, the back was found to bear this inscription, "11 Regent Street, London. Between windows, upper hall." This was proof positive that each panel was made to order and to measure. This hall is very remarkable. It is done in tones of gray, outlined in black. Landscapes that represent old Roman ruins are set like framed pictures in alternation with strange heraldic devices like coats-of-arms.



Early wall-paper, depicting the River Seine, at Paris

In other rooms are papers in brown tones, showing castles set in shrubbery and encircled by lawns, with sailboats gliding over lakes or rivers, and peasant figures loitering upon the shore. All these papers are apparently as fresh as in the days when Lafayette was entertained in this mansion, or when President Monroe and Andrew Jackson tasted of its hospitalities.

We can come very near to the time when these papers were made, but this is not so true of all specimens. The origin of the first wall-paper is wrapped in mystery. We know that when Columbus discovered America the Spaniards were covering their walls with squares of stamped and painted leather. Other European countries copied this fashion to a greater or less extent, but in England it was apparently never very popular.

The first wall decoration used in England was doubtless the tanned skins of animals slain for food. Afterwards the women became adepts at working all kinds of designs upon tapestry, or arras, which means the same thing. These hangings were made in comparatively narrow strips, and work up and down upon rollers, just like a curtain. They shut out draughts and hide the unsightly, ugly walls, thus adding both to the beauty and to the comfort of an apartment. Our modern so-called "tapestry-papers" are an attempt to reproduce in wall-paper the effect of cross-stitch done in silk or worsted upon appropriate material.

Painted canvas was often used as a cheaper substitute for

An eighteenth century scenic wall-paper in the house of Colonel William R. Lee, Marblehead, Massachusetts

tapestry. So was dyed cloth. It is doubtful whether any paper hangings appeared in England before the Sixteenth Century, when they came by way of Spain and Holland from the far East. Even then, they gained but slowly in popularity. The English were then, as they are now, a conservative people.

By the middle of the Eighteenth Century, they were in extreme vogue, and tapestry was being used for covering furniture. This time brings us to the Lee mansion and its landscape paper just described. The colonists had become prosperous and powerful, and the newest fashions of the mother-country were being eagerly sought for home decoration as well as for wearing apparel.

These papers were made in blocks, instead of in long rolls. The shading was often done by hand, with the utmost care. Lovely tones of red, blue, and brown produced quiet color effects by the use of from fifteen to twenty sets of blocks. The French papers were even more highly finished than the English.

One of the most exquisite of French papers is that which is shown in our illustrations from the old Knapp mansion in Newburyport, now owned and occupied as a Summer home by Mrs. G. W. Perry. This house was built at about the same time as the Lee mansion, by a Revolutionary hero. The paper of which I write is of a later date, belonging to the first quarter of the Nineteenth Century. Similar paper is found in the hall of Andrew Jackson's residence, "The Hermitage," near Nashville, Tennessee. It is produced in wonderful shades of soft green, red, peacock-blue, and white—all apparently undimmed by time. It represents scenes from Fenelon's "Adventures of Telemachus," and was a favorite novelty in Paris in 1820. All the examples of this paper found in this country must have been imported from Paris at about that time, and were of artistic interest.

While considering this subject, I could scarcely refrain from saying that herein lies one charm of these old-time papers. There was real meaning in them. They expressed distinct ideas. A single theme was elaborated to decorate a whole room. Thus there was a room hung with paper to illustrate the touching old mythological story of Cupid and Psyche. It adorned twelve different panels, and its manufacture required the use of fifteen hundred sets of blocks. It is but natural that decorations such as this should have produced a stronger effect upon the mind than that which we receive from a sage-green cartridge-paper, however useful the latter may be in serving as a background.

Hunting scenes imported from Antwerp were popular in the early days of the century lately past. An excellent example of these is still extant upon a wall in the Safford House in Salem. This house was built in 1818, and the hunting scene was one of the original papers, so that we can approximate very closely to the time to which it belongs.

A quaint old-time landscape wall-paper

Marine landscape wall-paper in the house of Mrs. G. Perry, Newburyport, Massachusetts

Here the colors are still remarkably brilliant, the dark green of the forest throwing into fine relief the red coats of the huntsmen and the graceful pose of prancing steed and yelping hound.

Another Salem house shows a fine example of the series of related pictures. One entire room is papered with different scenes from the adventures of Don Quixote. This paper lay in an attic, stored away in rolls, for forty years before it was hung. Hence it is in a perfect state of preservation. The coloring is in tones of brown upon a cream-white ground. I regret to state that all subjects chosen were neither so edifying nor so classical. I recall one French paper in sepia tones, which portrayed the scenes from the life history of a French gallant of the Eighteenth Century. Here might be seen a quarrel over dice, an "affair of honor," a proposal of marriage, an elopement, and like interesting topics for representation. Each of these scenes was surrounded by rococo scrolls which seemed to form the connecting link in the series of adventures.

The Olympic Games made a beautiful and impressive subject for pictorial paper. Not many specimens of this are to be found, and this is unfortunate, as the choice of subject and its excution combine to make this paper, perhaps, most artistic of all. The coloring is in tones of brown. Any of the paper which exists was imported from France before the year 1800. I have seen but one room papered with this—a parlor in Keene, New Hampshire, but I have heard of one other similar series.

Another very interesting subject along these lines belongs twenty-five years later and depicts scenes from "The Lady of the Lake"—The Chase, The Gathering of the Clans, and Blanche of Devon's Prophecy. Highland scenery makes this landscape paper truly picturesque. Natural scenery was a favorite theme in the landscape papers of the early Nineteenth Century. One of these is a Venetian scene from the old Wheelright house in Newburyport, Mass. This fine old house, now used as an Old Ladies' Home, was built nearly a hundred years ago by an ancestor of William Wheelright, who built the first railroad across the Andes. This paper seems still untouched by time. The chariot-race, found on another room in the same house is made ludicrous by the lack of harmony between the costumes of the human figures and their environment. It is as if a number of well-meaning Englishmen and Englishwomen had been transplanted to Rome and set back about eighteen hundred years. The Bay of Naples was a very favorite theme for repetition upon the walls, and surely, if any theme could bear indefinite repetition, it might well be a scene as lovely as that!

Scenes from Paris were much in vogue during the times when France was in high favor, during Washington's Administration, as well as that of John Adams. It went under a slight cloud soon after, as any student of history will remember!

"The Seasons" makes a fine landscape paper, still to be seen on the walls of a library in Hanover, N. H. It is perhaps of a little later date than those in our illustrations, but would belong to the same period. The four walls of the room represent the four successive seasons, pictured in neutral tint, with no sharp contrasts, but only a gentle

harmonious passing from sowing to cutting the hay, from haying to reaping the harvest, from harvesting to the falling of the snow and the echo of sleigh bells. Scenes along a French boulevard belong to the same time as the scenes from Paris. The Pantheon at Rome is very accurately represented, as are various cathedrals, and even the Alhambra. Sometimes the natural scenery consists of mere fancy sketches, repeated as a unit of design. Such a paper was to be found until recently on the walls of the Lindell-Andrews house in Salem, built in 1740. It had four different scenes from nature, rich in foliage, all in tones of sepia, repeated in order about the room. A lady from Rhode Island was visiting at this house, and was consumed with admiration for this old paper. She determined to decorate a room in her own home with similar landscape paper. She sent a skilled designer to Salem purposely to obtain a copy, and then had the model reproduced by a well-known artist.

Early wall-paper, showing influence of the Empire style

In the hallway of the house last mentioned, the walls are covered with a hand-painted decoration, now too worn and tarnished to bear photographic reproduction. It represents landscape with waterfalls and a variety of natural scenery. These hand-paintings were the forerunners of landscape paper in our country. In the very earliest days the walls of the log-cabin were left in a state of nature, save as the chinks between the logs were stopped with clay. When sawmills became common and houses were boarded outside and plastered within, a coat of whitewash for walls and ceiling was their usual decoration.

After the whitewash failed to satisfy the growing esthetic sense of the home-makers, the fashion turned to queer stenciled effects, and then to hand-painted decorations. The earliest examples of this were simple repetitions of some favorite—a rose, a poppy, a violet, or a pink. From these it was but a step to the reproduction of "the human form divine." Then came the complete landscape, with its scenic presentations of nature, and then they were ready to appreciate the real merits of the landscape paper.

An old-time wall-paper, showing a pastoral design influenced by the classic spirit

THE RELATION OF OUTBUILDI

THE home-builder who has settled upon the plan for his house will probably find that the style for the dwelling is by no means the only building problem confronting him. The modern house, whether it be a small one or one of pretentious proportions, will, in all probability, require other buildings complementary to it to complete the home architectural group. There will be the stable, or the garage—both perhaps—various sheds, the outside storehouse, poultry houses and the outbuildings in general that are requisite to the convenience of a permanent domicile. The wise home-builder and the thorough architect has come to appreciate the fact that harmonizing the outbuildings with the dwelling house is one of the most important matters for serious consideration in planning the premises for ultimate effectiveness. One style of architecture throughout any group of buildings lends to them a strength of architectural purpose, as it were, that adds greatly to the distinctiveness and attractiveness of any home surroundings. The reader will see displayed upon these pages various types of dwellings and their ad-

GS TO THE DWELLING HOUSE

jacent outbuildings, and one notes how much more interesting the chalet-like house is for having its nearby garage and outside servant quarters designed along the same general lines, or the half-timber house for having its stable and gardener's cottage carried out in half-timber style likewise. The early builders in America had an eye for this sort of thing and planned their outbuildings to harmonize with their houses. One does not quickly forget the charm of the English village where its cottages present outbuildings usually in accord with their design, which produces an aspect at once harmonious and attractive. Of course, the material employed in building the dwelling will often determine the grouping of the outbuildings. A Dutch Colonial frame house, for instance, can properly be connected by covered passageways with the various outbuildings about it. One has only to recall Mount Vernon to bring to mind the successful arrangement there of the colonnades uniting the service wings. With stucco houses all the buildings of the premises may properly be brought into relationship by actually connecting them, whereas with the half-timber or even with the brick house, the scheme of separated buildings is more pleasing to the eye.

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The interesting old Colonial house at Groveland, Massachusetts, belonging to descendants of the Parker family

A House With a History

By Mary H. Northend
Photographs by the Author

THERE is something especially attractive about the quaint old-time house, here described, situated far back from the gaze of passersby, in the midst of beautiful grounds, which has preserved intact, through all the years, its original characteristics. It stands an expression of past simplicity in its environment of modern hurry and progressiveness, but the contrast is inclined to be much in its favor. Solidity and unbounded comfort is the chief keynote in its construction with due regard given to suitable artistic properties, and as a result it is most distinctive with an air of elegance not always seen, perhaps, in homes of more recent construction—an example of careful thought and able, earnest labor. Houses of this type are comparatively rare to-day and it is more or less in the nature of an unusual occurrence that one is found still retaining all its old-time interest. Such houses are all too often torn down to make way for modern dwellings of up-to-date construction, or else are remodeled to suit the present day taste, and while in the latter event they usually serve their purpose well, and still show many of the characteristics of their early period, they never quite seem the same.

Numbered among the really few genuinely old dwellings is one at Groveland, Massachusetts, known as the Savory House, which in no way has lost its original lines, and which dates back to pre-Revolutionary days. It is one of the typical, old-time homes combining in construction some rather unusual features, and presents both an exterior and an interior practically unchanged from the date of construction, early in the Eighteenth Century. It came into the possession of the Parker family in 1777, having been purchased by one Moses Parker, the great-grandfather of the present owner, who obtained it for the consideration of one thousand pounds sterling, and it has since sheltered five generations of the same family, in direct descent. In the days of the first Mr. Parker's occupancy, it was the favorite haunt of many of the most prominent men of the times, Mr. Parker being the chosen leader of all town affairs, as well as one of the prominent men of the day.

The quaint old gateway entrance

The house differs somewhat in construction from the old-time, square-frame Colonial dwelling, inasmuch as it has a wing-like projection at one end, and two front doors. This latter feature seems especially unusual, though not without significance, for each door has its special use. The one in the main part of the house (a very handsome entrance, finely proportioned, the heavy door adorned with a quaint brass knocker, highly polished) was used as the company entrance only. This opened

The sitting-room still retains its aspect of hospitality

The woodwork throughout the house is most interesting

upon a hall, from which one entered the carefully-guarded parlor, opened only on the rarest of occasions, namely, in the event of marriage, death or ministerial call, while the other entrance in the wing portion was the family entrance, which afforded access to the more commonly used family apartments.

Outlining the main part of the house is a high Colonial fence, the gateposts topped with massive hand-made urns, and at the rear is a courtyard with a small building at one end. This building is particularly interesting, with its domed windows and handsomely carved arched entrances. It is of the same date of construction as the dwelling, the only change from its original condition being the absence of one chimney, which was removed to make extra room for some needed requirement. Beyond the shed and extending to the street boundary, is the orchard, abounding in apple, pear and plum trees, and beside it is the old-time garden, which still retains its wealth of Sweet Alyssum, Mignonette and other old-fashioned flowers, so popular in our grandmother's day, laid out in primitive beds and borders, among which it is a delight to wander.

Within, the house is a very treasure trove of antiques. Rich old furniture abounds and finds a suitable setting in the large, low studded, square rooms, with their handsomely carved woodwork, and within the deep built-in cupboards and closets quantities of wonderful old china are stored, the whole doubly cherished as wedding gifts of brides of long ago.

The main hallway, with its wealth of paneled woodwork and beautiful hand-carved balustrade, still shows the quaint guests' candles standing on a small table in the stairway, which were used to light the way of visitors to the house in early times. The chairs which are shown in the wall are carefully cherished, being part of the wedding furniture of great-great-grandmother Parker and were brought from England by one of the first of the family to live in America. These chairs, as will be seen from illustrations accompanying this article, are especially fine.

Opening out of the hallway of the Parker house is the old-time parlor, this room being now in general use. Here the furnishings consist of beautiful old-time pieces, which, if they could but speak, would no doubt unfold many an interesting tale of past history. At one side of the room is a wide, deep fireplace, flanked on either side by paneled walls. This is one of the dominating features of this home-like room and the cheery glow of the great oak logs, as they burn on the ancient andirons, no doubt creates in the minds of the household, as they sit before it, many a wraith of old-time faces.

From one side of the well-lighted living-room, with its quaint many-paned windows set in broad sills, filled in the Winter time with old-fashioned posies, leads an apartment now used as a den. Here one side-wall is entirely lined with built-in cupboards, the doors of which are of glass, showing to advantage the exquisite sets of rare old Lowestoft and Staffordshire ware, as well as beautiful glassware, all of which were wedding presents to the first Mrs. Parker, more than one hundred and thirty years ago. No finer examples than these of china of this sort are to be found in all New England. Wonderful old prints hang on the walls of the den, treating of subjects of long ago, and old books, most of

A corner of the stairhall, with its fine old chairs

them of the most ancient type, fill the bookcases which line two sides of the room. The furniture is all of the great-grandmother's time, and together with the other equipment lends an air of rich simplicity, which is most restful to the guest who is fortunate enough to partake of the hospitality of the comfortable home.

The dining-room of the Parker house should be given more than passing attention, as it is in many respects the most interesting of all the rooms. Its equipment includes a magnificent old-fashioned sideboard, with beautifully carved legs, this being laden with some of the choicest pieces of china and cut glass, Windsor chairs and an old pulpit chair, used by an early ancestor who was the pastor of the Groveland Church, while within the deep enclosed cupboards innumerable pieces of wonderful old china are stored, including a complete dinner set of Canton-ware of early make. This set of china differs greatly from many others of this make, and it is said to be the only one of its sort to be found in America, the blue being of a much darker, richer shade and the pattern different from those usually seen. It was brought over in the hold of one of the old Newburyport merchant ships, having been made especially to order as a wedding gift for the bride.

Enough pewter ware for a full dinner service can also be seen here and a quantity of ancestral silver. Among

In this old corner cupboard are stored priceless examples of early Colonial china that have remained in the Parker family for many decades

the pieces in the pewter collection are many fine and unusual examples. Fortunately this family is one which has always appreciated these possessions and its various members did not, as did many elsewhere, destroy objects of the sort or hold them as of little worth, as was too often the case. Some of the choicest pieces date back to the Sixteenth and Seventeenth Centuries, when the popularity of this metal was at its height. Much of the pewter bears the excise stamp, a cross and crown, showing its early origin. Some of the rarest pieces show three distinct stamps. The intrinsic value of this metal may be little, but for the sake of its rich historic value it is one of the choicest possessions in the family.

The deep cupboards and closets of the Parker home are built in conformity with the general broadness of construction, and the lowness of stud emphasizes the spaciousness of dimension. Large comfortable apartments are the rule of this dwelling and the dining-room follows this general order. Broad windows looking out into the garden render it bright and cheerful, this pleasant outlook adding to its attractiveness.

In one of the chambers above, the furniture of the original owner is still used. This includes an old sleigh bed, a dresser, and several queer little tables and fine old chairs. One of the tables is of the Hepplewhite type, and it still holds two of the candle-

Bits of early pewter-ware are tucked here and there upon the shelves of the various china cupboards one finds in this very interesting old house

The dining-room, with its original furnishings

One of the old-time Colonial bedrooms

sticks, together with a tray holding brass candle snuffers, which was used to light the guest to bed in the days of long ago. A sampler hangs on one of the walls, which was worked, when a child, by Moses Parker's wife, who stitched into it many a quaint conceit. All the chambers of this house show original Colonial fittings, the rooms being kept as nearly as possible as they were in former times.

In the roomy attic under the old-fashioned roof many choice relics of a bygone age are most carefully preserved. Chests containing beautiful old gowns and rare curios from abroad are carefully hoarded. Here in an old hair-covered trunk, profusely studded with brass-headed tacks, and carefully hidden from view the "Lady Catherine" was found. A most wonderful lady, indeed, dressed in the fashion of Colonial times, in a fine white mull, tinted with age to a beautiful ivory. She was carefully holding in her hand a note of introduction, stating that her name was "Lady Catherine." She was more than a century old and had no doubt been cherished so carefully by tiny hands of long ago that it seemed almost sacriligious to withdraw her from her long years of obscurity. Also stored here are several other well-worn mementoes of small Parkers of the long ago.

In this quaint old Savory house there still exists a chamber which, in the earlier days of its history, was completely shut off from the main portion of the dwelling, and the only access then to be had to it (as old records and letters in the possession of the Parker family explain) was from the outside. This was probably by means of a secret door, traces of which have come to be destroyed in later years. The reason for so mysterious an apartment was the fact that here were held in great secrecy numerous Masonic meetings, the proceedings of which were kept from the more curious of the neighborhood by reason of the privacy of the chamber and the thickness of the walls enclosing it. Even in those old days one's neighbors' affairs were matters to occupy the time of the idle, and so the little group forming the Masonic element of Groveland's early society chose their meeting place in the protected spot afforded by the arrangement of the Savory house, which, by reason of its private ownership, placed it beyond the bounds of unwelcome intruders.

Lady Catherine, a doll of Colonial times

There is always the charm of mystery about an old house of this sort that endears it to one, even to the stranger across its threshold, beyond the knowledge of its authentic historical associations. So you conjure up visions of life in Colonial days as you turn to look at it in passing, and history seems to have for you on such occasions the sense of reality.

The sturdy old house complete is both simple and dignified in its outlines, and typifies strongly the best principles of early construction. The sturdiness of its build is best evidenced in its excellent preservation, the underpinning and walls still standing as staunch as on the day it was built.

The exact date of its erection is not definitely known, though it antedated the Revolutionary War by a number of years, for at the time of the first Mr. Parker's purchase it was considered old by residents of the town. It stands to-day a distinct landmark in an interesting community, and the present owner may well feel proud of her possession, the sensible touch of Time not yet marring the outlines or the air of its age.

The house of Mr. Max Held, at Flatbush, Brooklyn, New York—view from the terrace side

A House on English Gothic Lines

By Harvey L. Reddington
Photographs by T. C. Turner

THE charm of the various English styles of domestic architecture and interior decoration that are coming to appeal very strongly to the present generation of home builders, finds an interesting exponent of their application to the modern suburban home in the house here illustrated, the residence of Mr. Max Held, at Flatbush, Brooklyn, New York, designed by Arthur D. Russell, architect, New York, who also planned the interior decorations throughout. In recent years we have come to have a more intimate acquaintance with the decorative period which produced the furniture of Adams, Sheraton, Chippendale and Hepplewhite, but we have seen less, perhaps, of the decorative periods preceding the styles just mentioned, at least so far as interior work is concerned.

The main motif of the Held house is that of English design, and both the exterior and the interior have been successfully evolved along these lines without producing anything that detracts from the homelike quality that every dwelling should possess, and without the introduction of those bizarre notes that often tend to throw a sense of modern order into confusion through a misapplication of period to place.

The main entrance to the Held house

The first consideration of the architect in the present instance was that of harmonizing the interior of the house to its exterior, in the matter of general lines. Then followed the careful planning of color schemes for the various rooms, and finally detail was determined upon. The floor coverings for each room of the Held house were especially designed for the rooms they were to find place in, the carpets being woven in deep, rich Austrian hand-tufted fabric. Each piece of furniture in the Held house was likewise especially designed to fit the room in which it was intended to be placed. The woodwork of the entire first floor of the house is of oak, rich and brown in finish, and although generously utilized, the effect is one

One of the upper-story sitting-rooms

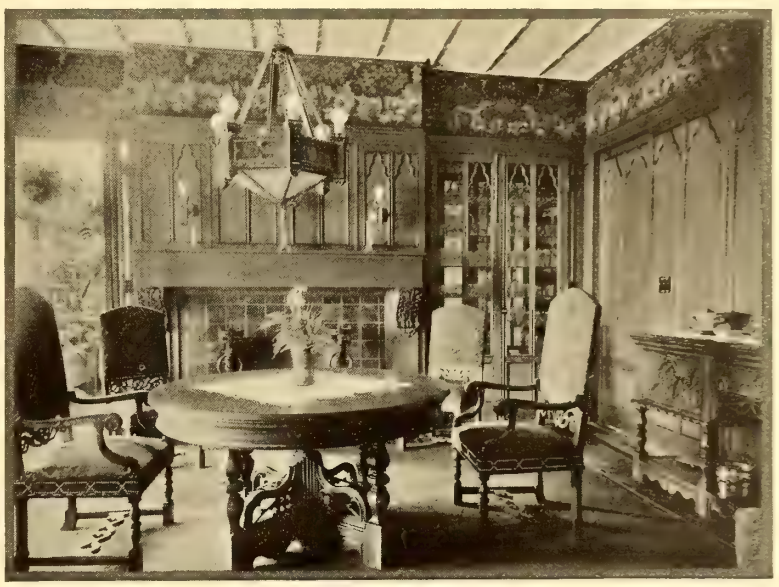
The bedroom used as an upper sitting-room

that in no particular sense is likely to suggest monotony.

This house is entered on its avenue side through a spacious vestibule, the domed ceiling and side-walls of which are paneled, the brown wainscoting being patterned with carving in "linen-fold" design. The windows of this vestibule are appropriately filled with stained glass, excellent in design and rich in color effect.

One steps from the vestibule directly into the living-room upon the left, two large doors from this opening upon the library, from which ascends a well-designed stair. A glance at the first-floor plan will give the reader an idea of the very original utilization of floor space in this house, preserving as it does a great unbroken terrace front and producing for the interior a delightful sense of spaciousness, which would not have been possible had the area been broken up by a central entrance hall. The fenestration of the house is another point to which attention should be called. It is regular without monotony, and floods the house, both lower and upper stories, with sunlight. The large living-room is carried out in Jacobean style, and has

One of the bedrooms



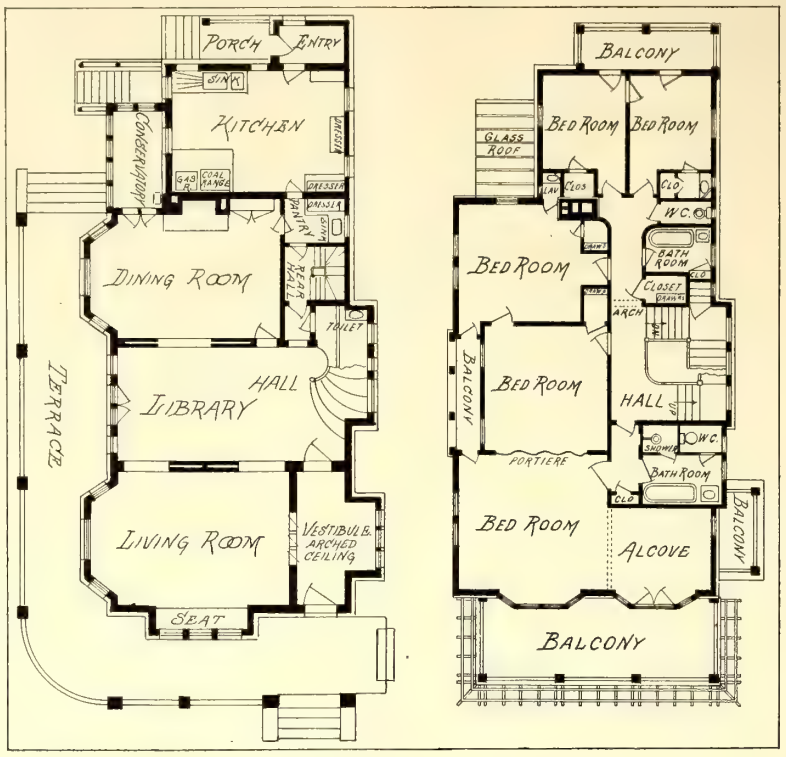
The paneled dining-room

The well-lighted living-room

Hallway, looking into the dining-room

a high wainscoting of oak in warmer tones on browns surmounted by a decorative frieze.

The dining-room is in the style of English Gothic, having for its woodwork oak of a somewhat lighter tone. Here the high paneled walls are completed with tapestry hangings and a painted frieze. The motif of the rug of rich green is based upon the Gothic style of the room and completes its harmony, to which the chair-coverings likewise lend themselves. The large fireplace in this room has its hearthside faced with tiles of green faïence, and the andirons as well as other hardware in this room are of Gothic design. A conservatory opens off from the dining-room to the left of the fireplace, and in the warmer seasons this room is used as a breakfast-room.



Plan of the first and second stories

The library is one of the most interesting rooms in the house. Its walls are paneled with soft brown silk above the wainscoting of oak. The rug is woven in colors that are soft and rich—a plain center of brown and a border worked out in self-tones. A glance at the first-floor plan will show that this room is well lighted, both by the windows opening upon the terrace and by the square bay of the stairway. The furniture of the library is Elizabethan, and while no formal adhesion to period is maintained here, the sense of harmony and comfort is derived by judicious selection in the furnishings. The various hangings in this room are planned to accord with the general brown color scheme and take their note from the wall fabrics. The valances and curtains have gold fabric pattern appliqué and are very rich in effect. In this library we find hung a few well-chosen pictures, but this is the only room on the first floor so adorned.

The second story contains five bedrooms, bathrooms and hallways. One of these rooms serves as a sitting-room and one as a den. These are both most striking in their being furnished in the Egyptian style. The rug has a center of Alexandrian red surrounded by a border, the principal motif of which is the Lotus flower. The other colors introduced in this striking floor-covering are bright yellows, greens, blues and grays. The walls are covered with leather of a warm gray tone, and the woodwork is in silver finish. All the furniture is finished in *vert antique,* and given the suggestion of old metal in its finish, thus bringing it in keeping with what the decorator might designate as the Egyptian style.

A terrace overhung with vines runs along nearly the whole of one side of the house

The saddle horse should be considered an indispensable adjunct to every complete American suburban home, and riding a national pastime

The Saddle Horse for the Country Home

By Herbert J. Krum, Editor *The Saddle and Show Horse Chronicle*
Photographs by T. C. Turner and Others

AS AN adjunct to the complete suburban home, nothing is more indispensable than the saddle horse. It forms an integral part of every establishment that has even the remotest flavor of the suburbs connected with it. Saddle horses are no longer used, as they were in early days, for a means of transportation, as they have been superseded by the more modern inventions of the motor car and the electric trolley. But, nevertheless, the place that the saddle horse has in the economy of modern affairs is one both unique and necessary, and from which there is not the slightest danger of his ever being usurped.

The question of breeding horses, either as a business or as a pastime, has long been one which has engaged the favor and attention of some of the keenest minds our country has produced, and as regards some kinds of horses, especially those available for racing purposes, there has long attached a halo of romance and a spirit of mysticism born of the uncertainty of the results that has seemed to lend a never-ending fascination to the subject. The racing of horses, of the kind used either under saddle or in harness, has always been a most precarious sport. It is unquestionably true that eighty per cent. of the horses in the United States are bred at an absolute loss to the original breeder. The number of those horsemen who have achieved affluence as a result of their horse-breeding activities is scant in comparison with those who have met disappointment and financial loss, if not utter ruin. Nothing in all this, however, is to say that the breeding of horses as a business proposition is not one which can be carried on with a measurable certainty of financial profit and reward. It has seldom happened that people who have engaged in the business of breeding horses have done so from any other reason than of innate liking of the horse himself; and it has still more rarely been the case that where a person has engaged in this work he has applied thereto any of the business principles which alone could make for success in this or any other line of human activity. It would appear axiomatic that there is no reason in the world why a person should not be able to deal in horses as a merchandise upon the same basis of profit and loss as would attach to any other commodity. The principles of selection and the operation of the laws of cause and effect are things that are lost sight of by the average person who engages in the horse business. Such persons have an ideal of their own which they wish to perpetuate regardless of any such considerations as market demand or the suitability of the animals if successfully produced for the purposes for which they might be exchanged for coin of the realm. Most unfortunately, it is true that horse breeding experiments are largely uncertain. Undoubtedly there is in the horse world a law which governs and controls the production of horses after their own kind. The great trouble with breeders has been that they have been unable to learn what the law is or in what manner its operations may be controlled and made manifest.

Every American child should be taught to ride, and to ride well

It is true that no other form of live-

stock presents so many engaging aspects as does the production of fine horses. There is very little trouble and only a minimum of expense attached thereto, and any person who is in the possession of a suburban home can successfully breed and raise horses, and do so with both personal pleasure and financial profit, provided he has the instinctive horsemanship without which no success in these lines is possible under any circumstances.

Saddle horses present a peculiarly attractive form of the horse problem. The future of the animal is permanently secured. Nothing can take its place. There is nothing else that anyone can use for saddle horse purposes with equal satisfaction or benefit. The saddle horse does not come into competition with the motor car nor with any other means of locomotion. He is of his own kind and remains alone in the field of his own domain.

There is no other form of human activity which combines in equal measure the advantages of convenience, beneficial exercise and healthful exhilaration. To the person to whom the horse idea is not an utter stranger, horseback riding is pure amusement. In comparison with other forms of exercise it has advantages of its own. In the first place, it takes one into the open air, of necessity, and therefore has the advantage of any kind of indoor or gymnastic exercises or forms of recreation. As compared with golf or any of the outdoor sports that are open to the city man, or the person of sedentary habits, it is convenient. One's saddle horse may be brought to one's door before a ride and left there after it is finished. The advantages of horseback riding are so manifold and so various as to well nigh be impossible of enumeration. It is not extremely violent and may be graduated to suit the need of the rider. It is a pleasure and a benefit in which every member of the family can participate with equal advantage and either singly or together. The head of the household mounted on a high strung, proudly stepping horse; his wife upon another comparable to the efficiency of her equestrianism; and so on down through the various members of the family until, perhaps, the little tot upon her pony scarce larger than a Newfoundland dog, may frequently be seen in various parts of the country morning, noon or evening. While the exercise is not violent, it is of that particular kind and character that starts the blood with an exhilarated circulation; that stirs the torpid liver, and with its constant gentle shaking puts the flesh into a condition of healthy hardness; makes the filling of the lungs with the pure ozone of the outdoor air compulsory in a slightly accentuated manner, and brings the glow of health to the cheek of man, matron and maid. It is full of the charm of diversity. One rides east to-day, and west to-morrow The hunt across a wild country, for instance, will give one a glorious pastime, responding to the most daring of venturesome spirits. And with it all, the horseback journey, even alone is full of the companionship of a congenial comrade. Saddle horses are undoubtedly the highest development of equine intelligence, and are as varied in their moods and humors as are their riders. They are companionable to an almost unbelievable degree, and are full of understanding and responsive affection. Occasionally they are full of animosity, and some horses dislike some men with as real and genuine evidence of dislike as exists between uncongenial members of the human family.

Riding is a most exhilarating pastime for the American woman

As nothing can supplant the saddle horse, or take the place of the various uses for which he is available, it will, perhaps, be fitting to enumerate some of the requisites of this class in their best estate. A rather curious condition exists in the United States regarding the subject of saddle horses. What is meant by the term "saddle horse" is determined almost entirely by the matter of geographical location. Kentucky has long been known as the home of the best ones of all kinds, and the source from which they come. There are numerous other states, however, in which just as good, though, perhaps, not so many, fine specimens are produced. But in Kentucky, and, generally speaking, throughout the West, a saddle horse is an animal that under the saddle performs a variety of different gaits that are technically recognized and very thoroughly distinguished. In the East, however, and, generally speaking, in metropolitan cities, but most especially in New York, what is known as a saddle horse is an entirely different sort of a creature than is the animal so called in Kentucky. The reason for this variance is found in the fact that matters in our larger cities that are under the dictum of the arbiters of fashion follow and approximate those things which obtain in Great Britain. An Englishman, of course, has a certain kind of riding horse which is as far removed as possible from the entity known as such just south of the Ohio River. The reason for this is found in the various uses for which horses are used for the same purpose in these localities; but certain leaders of metropolitan society follow as closely as possible the customs and manners of our English cousins and, therefore, though they may buy their horses at home, they get the sort that most nearly approach those used by riders across the water. There a horse walks and trots and canters. He is shorn of his mane and denuded of his tail. He is a rather plain horse of only a medium style of carriage, of solid conformation and up to carrying good weight. He must be tough and enduring, as he is used solely for rough and hard usage. In Kentucky, on the other hand, the saddle horse is distinguished first of all by great beauty of form and graceful appearance, both in outline and carriage. The early derivation of the breed found him a mixture of thoroughbred and pacing bloods, and this caused a tendency toward an ambling gait which was found very easy and congenial to the rider having to go long distances over such roads as were passable in those days. These tendencies toward easy gaits have been perpetuated and accentuated in the descendants of the early

ancestors of the breeds, and a type of horse, and the presence either latent or developed of these gaits, has been fixed by breeding, development and training. So that in a typical Kentucky saddle horse there is in addition to the walk, trot and canter, which are common to all breeds of horses, other gaits known technically as the rack, or single foot, running, walk, fox trot and stepping pace. To the untrained rider, or one unfamiliar with them, they present at first some difficulties, but are found to be, upon acquaintance, almost ideal for purposes of the equestrian. In Kentucky the glory of a saddle horse is in an extremely spirited and brilliant appearance, a graceful waving mane, and a great, gorgeous tail floating in the breeze and carried high.

Kentucky dealers, however, have yielded to the demands of the Eastern trade and have curtailed the tendency of many of their best horses toward the multi-gaits. They have also introduced plucking, docking and restricting the movements to three gaits favored by social custom in metropolitan centers. Practically all of the champions at Eastern horse shows, with but a few exceptions of thoroughbred blood, have been Kentucky bred and gaited horses, taught to forget their other gaits and shown as walk, trot and canter specimens.

Saddle horses of both kinds, as they are known in this country, have always been far fewer than the demand, consequently they have always had a very considerable value and at no time in the past has the average value of the best specimens of riding horse been higher than it is just now.

Dealers in the East and in all large cities are constantly visiting Kentucky and other states where these horses are numerously bred, in search of specimens suitable for their clientage at home. They are generally obliged to pay pretty high prices for their purchases at first hand and this is particularly true if the horses they select have been developed to anything like the finer state. A very considerable number of Kentucky dealers and those from other parts of the country make a regular custom of sending shipments of their best animals to the markets two or three times a year in the large cities in the East and elsewhere and disposing of them there at public or private sale. But the successful breeding and developing of saddle horses is of necessity by no means restricted to Kentucky or any other place, though naturally there are certain advantages in the favored Bluegrass district, but just as good horses can be bred and developed in Virginia, New York, Massachusetts, or almost anywhere else as is true of even the most favored districts in Kentucky or Missouri. The person who has anything like an adequate suburban home anywhere, and who has the natural instinct of horsemanship, without which success would be impossible wherever he may be, has all the requisites of breeding saddle horses successfully either for his pleasure or his business profit.

The ideal saddle horse is an animal between 15-1 and 15-3 hands, though horses either smaller or larger are used for these purposes according to the person who intends to employ them. It is particularly true of saddle horses that "there is no good horse of a bad color," though bays, browns and chestnuts are those most highly favored, and the question of white markings on feet and face is one determined by individual preference. A good saddle horse must have a good back—short, with strong coupling—and must have massive shoulders and, particularly for side-saddle purposes, high, sloping withers; good legs and feet are indispensable, and a medium amount of action both of knees and hocks is a prime requisite. Too high action

(*Continued on page 144*)

Saddle horses are undoubtedly the highest development of equine intelligence, and are as varied in their moods as are, perhaps, their riders

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

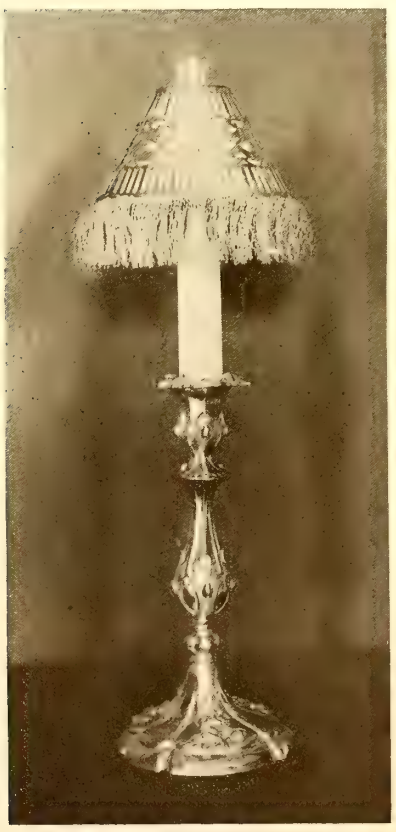
GRAY IN INTERIOR DECORATION

By Harry Martin Yeomans
Photographs by T. C. Turner

IN the eternal striving after something different, a general revival is taking place in decorative art, as is evidenced by the coming into use again of lacquered furniture in the Chinese taste and the black chintzes which accompanied it. The old maple furniture of the 1840 period, which was not considered worthy of being gathered in by the collector of old mahogany, is now being sought after eagerly, and the great interest taken in painted furniture has brought forward the humble, rush-bottom, painted chair of our grandmother's day.

The gray paneled rooms of the Louis XVI period are reflected in the gray wall-papers which have gradually made their appearance in the shops. These gray papers are good in themselves, and are not merely evoked by a passing fancy. If judiciously selected and properly combined with other colors, they can be used in almost any room in a house, and I cannot imagine anything more charming in effect and restful than a small country house having all of the rooms done in different tones of gray, relieved, of course, by accessory colors.

One is apt to think of gray as a very cold color and to associate it with formal drawing-rooms, boudoirs and bedrooms. This erroneous impression will be dispelled, however, if one will bear in mind that a real gray is not obtained by mixing black and white, but by combining yellow and violet, the resultant color being a warm, vibrant, living color, which is in reality a neutralized violet. The more yellow used in the combination will give a warmer and more luminous gray, and vice versa. When using this color it is well to remember that gray is the most neutral color we have, and therefore makes an excellent background and will combine harmoniously with almost any color. It is especially attractive when used in connection with yellow, apple-green, rose-pink or mulberry. In rooms where gaily-colored cretonnes and chintzes are used in draperies and upholstery, restful gray walls will counteract the effect of these highly decorative fabrics.



The candle-lamp shaded

Gray is especially suited to a country house and gives an air of spaciousness and repose. There are so many varieties of gray papers now that a monotonous effect will not result from decorating a whole house in this color. There are the plain gray cartridge papers, narrow and wide stripe effects in self-toned papers, the chambray and oatmeal papers, the basket weaves and the always delightful gray tapestry effects which are being reproduced after old Colonial wall-papers. Ivory-white makes an ideal finish for the woodwork in a gray room, and one can hardly imagine any other combination so delightfully fresh and clean in appearance. Rooms situated on the northeastern side of the house should have the warm yellow grays, the cool grays being reserved for the rooms having a southern exposure. Additional color can be introduced by having over-curtains of golden-yellow or rose-pink, and repeating this same color in cushions and lampshades, and flowered cretonnes and chintzes will lend color to a gray scheme which needs to be livened up. In bedrooms, a narrow cut-out frieze of pink or yellow roses will give a touch of color.

On account of its neutrality, gray is an excellent color for a hall connecting the different rooms of a house decorated in various colors. In a sitting-room in a country house a gray oatmeal paper was run up to the ceiling and finished with a molding. All of the wood trim was painted ivory-white and a two-toned moss-green rug covered the hardwood floor. The chairs and settee were simple wicker shapes, enameled a soft gray, with seat-pads and cushions of sage-green; the same color being seen in the China silk sill-length curtains at the windows. The tea-table, desk and desk chair were built on perfectly straight lines and stained a gray-green. The only pictures used were some Japanese prints framed in narrow moldings. Two tall glass lamps had yellow silk shades, which added an agreeable note of color.

The candle-lamp unshaded

The result was a homelike, cheerful, livable room, embodying all of the restful qualities which one expects to find in a room intended for Summer use. The gray tapestry papers after Colonial originals are an ideal wall-covering for halls and dining-rooms, and, as they were originally designed to be used as a background for mahogany furniture, they are most appropriate in the Colonial type of house and make a beautiful setting for furniture of Chippendale, Sheraton and Hepplewhite design. To controvert the theory that gray is only suitable for boudoirs and bedrooms, the owner of a recently completed bungalow thought he would try a different color scheme than the brown-stained trim which one instinctively associates with a bungalow. A gray and yellow scheme was decided upon, and all of the woodwork was stained a silver-gray, which brought out the grain and texture of the wood. The rough plaster walls were tinted a slightly lighter tone of this color and had a soft velvety appearance. Most of the furniture was of a simple type, stained gray and having tapering legs, which resembled those used by Hepplewhite on his furniture. Two of the comfortable Chinese hour glass chairs were added, as they seem to be at home in any company. The curtains were of gray cotton crêpe, sill length, with a narrow band of silver galloon three inches from the bottom. Gray rag rugs were laid on the floor, as their texture combined well with the gray-stained wood. A large chimney breast of gray fieldstones at one end of the room helped along the color scheme. Brown corduroy was used to upholster the window-seat, and two vases with a matt glaze had been made into lamps and fitted with yellow opalescent glass shades, which added materially to the attractiveness of this room. Here was an interior having all of the strong structural characteristics of the bungalow type of house, but which had lost none of its dignity and strength on account of being decorated with a gray color scheme.

A CANDLE-LAMP

THERE is a good substitute for the candle to light the dining-room table in the lamp shown in the illustration. It has the virtue of not burning out during a long dinner, which is not always the case when the imitation candles are used. The candle part is of porcelain, and holds sufficient kerosene oil to burn for twelve hours. The top is a miniature lamp, which simply has to be lifted off to be refilled, so that the top does not have to be unscrewed. It is simplicity itself, and, as the illustration shows, when the shade has been placed over the little lamp it has the appearance of a candle, but is far more convenient. They cost fifty-nine cents.

AN INTERESTING COUCH ARRANGEMENT

IT is often desirable to have a couch in a living-room, especially in small houses or apartments, where it could be used for sleeping purposes in case of emergency, but the detached appearance of an ordinary couch when placed in a corner or in the middle of a long wall-space is not very pleasing. A couch can, however, be treated in such a way as to make it an agreeable piece of furniture and make one forget that it is a couch, as shown in the accompanying illustrations.

Two box-like affairs, measuring 30 inches high by 32 inches deep by 20 inches wide, were built by a carpenter and placed at each end of a box couch. They were fitted with doors and shelves and made convenient storage places. Across the back they were connected by a flat board, extending down only as far as the top of the couch, which formed a back against which the sofa pillows were arranged. This back is not really necessary, as the pillows can be placed against the wall and will effectually hide the place where the couch and wall meet. These pillows were not made of odds and ends, arranged in hit-and-miss fashion, but were designed for this special couch and exactly fitted the space. There are five of them in all, arranged in a formal manner—three across the back and one at each end, the middle one at the back being a little longer than the others. They are of crimson velour decorated with bands of gold galloon across the ends, and blend harmoniously with the red tones of the Oriental rug which covers the couch. This unique couch arrangement is placed against a verdure tapestry, the blue-green tones of which make a most beautiful background. In place of the tapestry, three brown prints framed in flat moldings could be hung over the couch, a large one exactly in the center and two smaller ones on either side, which arrangement would compose well with the couch underneath. The tops of the boxes make convenient places for books, and a lamp would be a desirable adjunct. Another feature about this couch arrangement is the fact that it was built in such a manner that it could be moved from place to place, as occasion required, without having to rip it out of its place as one would have to do were it a bit of the usual sort of "built-in" furniture. Undoubtedly a number of different adaptations of this arrangement will suggest themselves to the ingenuity of the home decorator, such as having the box sides serve as book shelves, or as cabinets fitted with drawers.

An ingeniously devised and attractively designed built-in couch arrangement

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

APRIL DAYS IN THE GARDEN

Photographs by T. C. Turner, Nathan R. Graves and others

WHEN we turn our kalendars to April's page we find busy gardening days listed before us. Probably we will already have made our plans, have ordered our seeds, and have been getting tools furbished up, labels made, and a garden diary all ready to start. One cannot be too urgent about this last. The garden beginner who makes careful notes from day to day, throughout the whole season of planting and the maturing of flowers and vegetables, will find himself at the end of Autumn possessed with a record of incalculable value. With such a volume at hand, one's second year's gardening will be much simplified. aside from the pleasure and satisfaction that is to be found in keeping a careful day-to-day diary of gardening operations.

BY the first week in April the garden beginner should put a manurial dressing on the plot that is to become the vegetable garden. Asparagus and Rhubarb beds must also have manurial coverings, or have nitrate of soda applied to them as a fertilizer.

WHEN the earth is fit for digging—that, of course, is when all danger of frost is past—the garden can be ploughed or spaded. Beans, Corn, Vines and Tomatoes must not go into the ground so early, but seeds of hardy vegetables may be sown. An early garden is always worth the effort, though judgment must be exercised in fitting its planting to the exigencies of the season in the various localities of America. Roses should be sprayed with whale oil soap towards the end of the month, and then one may thin out the various perennial flower plants by dividing the roots.

There is not a lovelier flower for planting against walls than the common blue Lupine (*Lupinus perennis*) of the countryside

APRIL, ever famous for its sudden changes of temperature, leads us to be on the alert, which means that we must never have an unexpected frost find us unprepared to protect our newly planted things, or hotbeds and coldframes from it. Those perennials which will bloom this season if given an early enough start may now be planted by sowing their seed in coldframes without delay. As this will advance their maturity a whole season, the garden beginner will find it well worth his while to consider the matter of building hotbeds and coldframes as permanent adjuncts to his garden.

ANNUALS FOR CUT FLOWERS

IT is probably true that all flowers, whether they be annuals or perennials, are lovely as cut flowers for adorning the house inside. However, in response to the request of one of our readers, we give the following list of varieties which every garden, no matter how small, should include: Ten-weeks Stock, Sweet Peas, Nasturtiums, Coreopsis, China Aster, Sweet Alyssum, Mignonette, Gaillardia, Pansy, Phlox, Poppy, Zinnia, Dianthus and Marigold. Of course, it must be borne in mind that many other lovely flowers are available for cutting purposes, but no garden will quite seem complete which does not contain all the flowers listed.

CONCERNING THE LUPINE

EVERY garden beginner will do well to consider the advantages of employing the Lupine when planning the home garden. Whether the landscape is confined to a vista of limited premises or not, clumps of our native Lupine will add to the effectiveness of any planting scheme. The Lupine has an interesting history, deriving its name from the Latin word for a wolf—*lupus*—because it was believed that the Lupine destroyed the fertility of the soil in which it was found growing. The Lupine produces in its varieties blue, white and yellow flowers, but the blue-flowered variety is the loveliest. While the Lupine succeeds poorly in a soil that contains an abundance of lime, it will grow al-

most anywhere else, blooming abundantly in its season. The florist's Lupines form a group of hybrids by themselves and are well worth experimenting with.

THE GARDENER'S LIBRARY

WHILE it is true that experience is, after all, the most reliable source for constructive information, it is equally true that the experiences of others carefully recorded and authoritatively presented must not be disregarded by the garden-maker who would hope to achieve the best results in the shortest possible time. Intelligence is the only short cut to anything, and so the more we learn about gardening in general and in particular, the better equipped we are to find the most direct means of accomplishing the results that stand ahead of us as an incentive to interest ourselves in gardening at all. This serves to introduce the suggestion that every garden lover, whether he be of a bookish turn of mind or not, ought to have at least a small collection of books on gardens, garden-making and horticulture in general. Aside from the concrete knowledge such volumes by men of experience in such subjects contain—knowledge one may verify by one's own experiences—works of the sort contain suggestive material that will inspire the garden-maker to blaze trails for himself through the thickets of horticultural perplexities. In the March number of AMERICAN HOMES AND GARDENS the editor pointed out the value to every garden-worker and home-maker of the various State Experiment Stations of the U. S. Department of Agriculture, and in connection with the present subject attention may likewise be directed to the great usefulness of the various bulletins of the Department—bulletins on horticultural and agricultural subjects—to be obtained gratis upon application to the Department at Washington. Among the bulletins issued the following will prove of especial interest to the home garden-maker: No. 185, Beautifying the Home Grounds; No. 248, The Lawn; No. 99, Insect Enemies of Shade Trees; No. 127, Important Insecticides; No. 154, the Home Fruit Garden; No. 156, The Home Vineyard; No. 181, Pruning; No. 195, Annual Flowering Plants; No. 204, The Cultivation of Mushrooms; No. 218, The School Garden; No. 220, Tomatoes; No. 257, Soil Fertility. In addition to the bulletins enumerated above, the garden-maker should add to his library a standard work on soils, one on fertilizers, a comprehensive manual of gardening, and other volumes to which he can turn for assistance when he finds himself in a quandary, or for obtaining a more comprehensive knowledge of some phase of gardening in which he happens to become especially interested, such as Celery culture or Rose growing. As books on gardening subjects are apt to have constant handling and somewhat hard usage (as one will often wish to carry them out into the garden itself for the purpose of "study upon the spot"), it will be well to have all one's garden books of a practical sort rebound in stout bindings that will protect the volumes against the wear and tear to which they will necessarily be always subjected.

The value of hardy climbing Roses for planting around the house is here well illustrated

A stone bird basin of attractive design

PRUNING FRUIT TREES

A READER of AMERICAN HOMES AND GARDENS writes to ask the best time for pruning fruit trees. For the Peach, late Spring is the best pruning time. The pruning should then be undertaken just before the beginning of the new season's growth. February and March are not, generally speaking, too early for Apple and Pear tree pruning, while Grapevines should be pruned in the late Fall or early Winter months. Generally speaking, orchard fruit trees should be pruned late in Winter or early in Spring. In this connection, it will be well for the garden beginner to make a study of the sorts of buds of different fruit trees in order that he may learn to distinguish between the varieties of fruit trees by this means, when the first appearance of the budding occurs.

The sloping triangular corner here shown was walled and brought to a level with the lawn back of it, a pergola being added, furnishing a delightful outlook.

YELLOW ROSES

Hardy Yellow Roses will interest every garden-maker. The following varieties are especially recommended for any garden: Persian Yellow (the old-fashioned Yellow Rose); Yellow Banksia (hardy climbing); Yellow Rambler (Aglaia); Blumenschmidt (Cochet type); Goldfinch (hardy climbing); Maman Cochet; Clara Jacquier; Harrison's Yellow; and Etoile de Lyon (hardy everblooming Tea).

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

TOOLS FOR HOUSEKEEPING

By Elizabeth Atwood
Recipes and photographs by Mary H. Northend

IT IS strange how many very good housekeepers are careless about the "tools" of their routine work, both in regard to the completeness of equipment and in the care of them. If, for comparison, you take a a peep into a carpenter's chest of tools you will find everything there bright and shining. Do you suppose the carpenter would go to work with a rusty saw, the teeth needing setting and sharpening? Do you think he would try to use a plane that was not sharp? In short, before he begins a job he takes care that the contents of his tool-chest are in good order. Is his work any more important than the daily work carried on in any kitchen? I am sure it is not; but the carpenter realizes that in order to do a good job with profit to himself he must have his tools in such shape that he can go about his work with them quickly and surely.

It is the old story—almost any thing will do, as long as it holds together, is allowed to serve in the average kitchen, or in connection with the care of the house. This, however, is far from being true economy. Just because a maid is paid to do the work, it is often assumed by the inexperienced or thoughtless housewife that she can take extra time to rub the lint off from each tumbler that accumulates by reason of the old worn cloth given her to do service as a towel. It may be true that the maid is expected to do what is placed before her to do, but she should have things in such shape that her work may be facilitated, not retarded. If this were realized more fully by all housewives, there would be less criticism of the time it takes Molly to do her work. I do not advocate a myriad of fancy tools in a kitchen. All too often superfluous devices are mere hindrances to the worker.

ORANGE BOATS: Peel sweet oranges and halve. Ice each section with white frosting, and when set adorn each half with a citron sail. The result is attractive little boats

The simple furnishings—the really needful—should be of the best, and should be kept in perfect order. And maids are not the only ones who are careless in matters of this sort. A can of sal-soda should be on every sink shelf, for as a cleanser of tins and all utensils it is hardly to be surpassed. After boiling in this solution of soda, the sticky masses that have been burned in the bottom of dishes becomes disintegrated. Then the stain may easily be removed by using Dutch cleanser or any gritty cleaner. In this way all cooking dishes, with their pretty white linings, may be kept looking like new. Did it ever occur to you how much was left sticking to the linings of cooking utensils before the advent of white-lined kitchen ware, which shows every spot immediately?

Brushes are a boon in a kitchen, yet you would be surprised to find them missing where you would surely expect to find them. The long-handled brush for cleaning milk-bottles and narrow-necked pitchers; a brush for washing vegetables; a brush for washing iron skillets and tins, with a handle to it; a brush for brushing out fringes of doilies, etc.—these may be found in the five-and-ten-cent stores. So cost is not the reason for their absence. It is just plain lack of thought and care; and yet their use facilitates the work in a surprising way.

Then the dish-towels and the dishcloths. What a mess and mass of raggedness in this connection is to be found in many kitchens? Rags which have outlived all chance of usefulness as dish-wipers are relegated to do duty as dish-cloths, all strings and lint though they are. I have seen them, so I know whereof I speak. These same pieces of cloth taken and folded together, and a few rows of machine stitching put through them, would be changed from useless, troublesome rags to good dishcloths.

The same thing may be done in making good floor-cloths. Many thin pieces of cloth, very absorbent, are of no use whatever for the hard wear a floorcloth gets, if left open in the original shape. But take and fold in the straggling ends and stitch back and forth several times, and presto! the unusable is converted into the best kind of a floor cloth. Just a little thought, just a little care, and a maid's work is made just a little pleasanter.

The practice of using up the old tablecloths in the shape of dish-towels is a so-called economy practiced by many housekeepers, that to my mind is no economy at all, but a waste, while at the same time it adds work to the one who presides in the kitchen. The good housekeeper carefully hems her dish-towels before they go to the kitchen; others

tear their old table-cloths into sizes small enough for use, leaving ravelings to start with and ravelings to accumulate. And how the lint comes off! Over and over must the glassware be wiped to get rid of this lint. Think of how much must be left on the white ware which does not show it. I call all this mistaken economy. It calls for many useless extra motions in the course of the lifetime of the table-cloth towel which might have been saved. This is surely an age when all kinds of economy of labor should be practiced, and the wise housekeeper will save her maid or herself. Moreover, in cases of illness old linen is priceless. I have been called upon for old linen by my neighbors more times than I could supply the need, and I never wasted any in my kitchen. In the times of the Civil War the value of old linen and cotton cloth was recognized. I don't believe the housekeepers of those days wasted their old linen in the kitchen. If you do not think you will need it, save it for someone who may. There may come a time when it will be more of a gift than money. This is one way to help humanity somewhere, at sometime when you least expect it.

ORANGE IN SECTIONS: Score the orange in eighths from the stem nearly to the blossom end, and carefully loosen the peel. Then loosen the sections from one another, without removing them from the peel at the blossom end. Serve in this way, or roll inward the points of the peel to form a border around the base of the fruit.

As an example, let us cite the instance of two cases of illness in the neighborhood. One, a surgical case of many months' standing, had used up all the available old linen in the house where the patient was. I asked housekeepers for old linen for bandages, and not one could help me out. "I am very sorry, but you see we use our old table-cloths for dish-wipers and our napkins for dishcloths," was the answer every time. Perhaps sometime these people will wish they had saved their old linen when sickness finds them unprepared. And, really, how much money have they saved? And how much more work have they put in the kitchen?

Dish-toweling is woven for the purpose of wiping dishes. The fibre is hard-twisted, so that the lint does not readily come off. Table linen is not made that way. It is soft, and, when old, it is necessary to put a little starch in the water to hold the lint of the surface down smooth when it is ironed. All of this flies when kept in use in the kitchen.

The same economy (?) is practiced in the use of old sheets. How much body is there left in sheeting which has become thin enough to slit upon the slightest provocation, and is thrown aside as too poor to use on the beds? Yet these are considered good enough to use on ironing-boards. I have seen ironing-boards, many times, with square and three-cornered tears right where you would naturally start to iron. Why? Because right there is where all the force of the wear was the greatest. A piece of starched goods stuck, and rip went the cloth into shreds!

Now, two yards of unbleached "domestic," at eight cents a yard, gives the length for an ironing-board. Torn into two strips it will furnish the coverings, which in point of time will out-wear several old sheets, to say nothing of the comfort of an ironing-board which is to be trusted to resist starched articles. It is really an art to make a perfect surface on an ironing-board. In the first place, the ironing-board should not be less than five feet in length, tapering well at one end. It should have three heavy cleats screwed on the back to prevent warping, as the steaming on the upper part is very considerable. It is well to buy a strip of ingrain carpeting the length of the board, if you have none that is old, for it must not be too thin. Two thicknesses of that should be very firmly tacked into place on the edge, not turned over, and trimmed off neatly. This is really permanent, lasting many years, for the wool fibre never packs down so solidly as old cotton bedspreads, a favorite covering used by housekeepers.

On top of the carpet six or even more layers of old sheets should be fastened, and these covered by the new cotton, all stretched very taut. Here is a perfect ironing surface which will delight the heart of the laundress, whoever she may be. An old rug for her to stand upon, folded several times, will make her comfort complete, for ironing is as hard upon the feet as on the hands.

Speaking of hands, how many times haveI had to fold old cotton cloths over and over again to use as an iron-holder! For the old things would come unfolded while in use. Every kitchen should be supplied with perfect iron-holders, as well as thinner ones for use in lifting hot dishes. The pieces of carpet cut from the tapering end of the ironing-board serve as the best foundation. The wool proves an admirable non-conductor of the heat, which the old folded cotton is not. Cut this in round or oval shape, leaving no corners to get scorched while in use. Cover with bedticking, using two or three layers of carpet, according to thickness, neatly overhanding the edges. Three of these are the least one should try to get along with, for changing from one to another rests the hands immensely.

GRAPEFRUIT TUB: Cut the top from smooth, evenly-shaped grapefruit, and carefully cut to simulate the handles of tubs and the hoops on same. Remove the core, fill cavity with powdered sugar, and serve.

Perhaps this makes a good deal of trouble to go to just for ironing—but it does pay. The smiles of a laundress when she finds good tools for her work are only part of your pay. The moral effect of this thought on your part for her comfort is returned to you by additional perfection of work, for it undoubtedly serves as a stimulus. As for one who must do it herself, there surely can be no question.

Much time can be saved when one will bother to hem her dustcloths. I never found that feather-stitching made

them any more serviceable, although making them a very pretty as well as useful Christmas gift. Too often we see the old rags, lint-giving things, in use as dustcloths. And, too, these same cloths seldom get the washing they need in order to do good work. The same can be said of the cloths used for cleaning silver. Washing is good for them, too.

I know of no more aggravating thing than a dustpan with edge dented and curved, until there is no place more than an inch in length striking the floor. Perfectly good in every way save in having a straight edge, it is kept on and on. Trying it is to maid and mistress, yet, through lack of thought, it continues to try the patience.

Egg-beaters with a hitch in the cogs, or a slip more likely, necessitating, perhaps, twenty turns of the wheel where it should only take one; chopping-knives which never see a grindstone; strainers which have lost the "lip" to hang on the edge of bowl or basin, or have lost the handle, making it almost sure that the fingers will get burned—all these are to be found. What man would stand it?

Work is not only simplified, but it is made much pleasanter by having one's tools kept in order. It does take time, I grant you, but nowhere does the same expenditure of time bring greater results. All these things are worth the housekeeper's attention, for they make possible a conservation of energy that is a true domestic economy.

THE GARDEN OF ROSES

(*Continued from page 117*)

wood. Stake up longest canes: *Lord Penzance's Hybrid Sweet Briers,* exceedingly beautiful, several sorts in highly contrasting shades; *Refulgence,* semi-double flowers over three inches across, dazzling scarlet, borne in large clusters, very fragrant, a fine distinct sort; *Juliet,* this and Soleil d'Or (below) are Roses of a distinct new type; *Hybrid Austrian Brier,* very hardy, fragrant and free flowering, and having some flowers during Autumn (Juliet is very beautiful and distinct in having reverse of petals old gold, while the inside a rosy red, a striking combination); *Soleil d'Or,* fine double flowers, color from orange-yellow to reddish-gold, very pleasing.

The "Baby Ramblers"—This is the popular name which has been given to a new and very desirable type of Rose, most of which are Polyantha Hybrids. They are dwarf in habit, eighteen to twenty-four inches high, true *perpetual bloomers,* some of them blooming all year round, and very floriferous, the plants with their large trusses frequently looking like huge bouquets. They are very valuable for edging and bedding purposes, and *especially* for pot plants, for which use they are as yet too little known: Baby Rambler *Madam Norbert Lavasseur,* small crimson flower, resembling those of the Crimson Rambler; *Mrs. Cut-bush,* cerise-pink, like Lady Gay Rambler; *Auchen Muller,* brilliant rose-pink; *Katherina Zeimet,* pure white; *Mrs. Taft,* fine brilliant red; *Phyllis,* beautiful pink; *Little Dot,* delicate pink, shading white; *George Pernet,* bright pink; *Perle des Rouges,* deep red; *Snowball,* very free flowering, white; *Jessie,* bright cherry-red, white center; *The Orleans,* brilliant red, large white center; *Leonie Lamesch* is a very distinct new Polyantha, one of the most remarkable and attractive of Roses on account of its peculiar combination of colors, flowers are large and borne in trusses, ground-color Rose, shading deeper towards edges of petals, which are blotched blood-red, while the base of petals shows varying shades of yellow.

Inexhaustible indeed are the pleasures and surprises of the Rose garden, and happy he, or she, who can, even though starting out with but a dozen plants, add from year to year the wonderful new creations of the painstaking hybridizers.

THE SADDLE HORSE FOR THE COUNTRY HOME

(*Continued from page 137*)

gives the rider a rough voyage, while the stiff-legged daisy-cutting movement characteristic of the thoroughbred leads one to fear the danger of a fall as a result of stumbling. Dragging the hocks or carrying the hind legs out behind makes a collected unity of action impossible, and gives the rider an unpleasant sense of being roughly shaken. The neck should be what horsemen call right side up, in order that the horse may be able to take a collected form, by which is meant that his neck should be arched and his muzzle drawn in towards the chest so that it will be possible for him to have a responsive mouth constantly amenable to the control of his rider. The horse who goes with his head high and his nose stretched out is the one that will be beyond control and likely to incur disaster should he take a notion to bolt.

Among the faults and defects that should be most carefully avoided in a saddle horse are mutton withers, straight shoulders, impure gait, which means winging, dishing or paddling; weakness of eye or wind, drooping ears or long slab-side waists. A good saddle horse is wide between the eyes and has his ears close set and sharply pricked. The question of long or short tails is, of course, one of individual preference, with all sentiments of humanitarianism on the side of the tail in its natural state. The placid tempered, quiet going, sturdily built and muscularly developed horse is one that will give ideal service under the "pig skin."

The period during which saddle horses continue to be useful varies with the individual horse and owner, but well cared for they last for years. The undefeated champion saddle horse of this country, "Poetry of Motion," is now fifteen years of age and as fit for service as at any time in his career and, in fact, is to all intents and purposes a better and more useful horse to-day than he was when four years of age.

Practically every saddle horse is equally as useful in harness as under the saddle, and the fact that they are the most intelligent of any breed of horse is well demonstrated by the fact that although they are taught to go different gaits at a signal and to maintain that gait until given the proper indication for a change, they are also taught that in harness they are to go at one gait only, aside from the walk, and that they rarely depart from it. There is a curiously mistaken, but very prevalent idea that the use of a saddle horse under harness in a sense depreciates his value for riding purposes. So far from this being true, it is a fact that practically all saddle horses are made perfect for harness use before a saddle is ever placed upon them; and therefore the owner of a well bred saddle horse has one exactly adapted for the dual purposes of saddle and harness use; and, incidentally, it is proper to mention that, barring only extreme speed, there are no horses that can be used with greater satisfaction in harness or are better average roadsters than are the well-bred saddle animals. Because of the fact that they conform to type, and that a breeder can reproduce the particular sort of animal he cares for with measurable certainty, makes the breeding of saddle horses more probably certain of success and attendent by fewer precarious risks than is true of any other breed. By reason of the fact that it costs infinitely less to produce and bring to his finest estate a saddle horse than any other, this animal has an infinite advantage over all other breeds. The owner of a suburban home anywhere is the logical producer of the average type of saddle horse, and there are few things which can engage his fancy with greater certainty of profit and pleasure, or be attended by less of business risk.

Vitralite

The Long-Life WHITE ENAMEL

WHEN you build or when you decorate remember the splendor of colonial white wainscoting, pillars and stairways. How they set off the deep rich color of mahogany doors and furniture! Adopt this scheme in some or all of your rooms and ask your architect or painter to use Vitralite. Then the splendor will not fade, for Vitralite's pure whiteness is *permanent*. Vitralite does not turn yellow nor crack. It gives a smooth porcelain-like surface unbroken by brush mark; either a rich gloss or soft rubbed finish on any surface, wood, metal or plaster; inside or outside. It's water-proof.

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See for yourself what beautiful white effects Vitralite makes possible. ***"Decorative Interior Finishing"*** will help you in selecting color schemes for the whole house. You need this free book before you decorate. Send for it.

"61" Floor Varnish will be the finish for your floors after you **Send for Free Sample Panel** finished with "61" and test it with hammer and heel. You'll find it mar-proof, heel-proof, water-proof. You may dent the wood but the varnish won't crack. ***"The Finished Floor"*** is a free booklet which tells how to finish and care for floors. You need it as well as our other books. Send for it.

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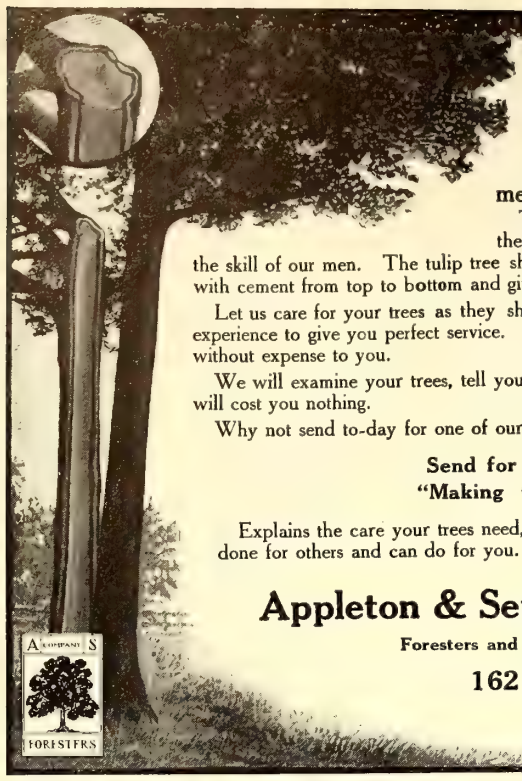

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Have Your Trees Put in Shape

Make them a source of pleasure for your summer and a valuable asset to your property.

There are few trees past saving. Many a magnificent tree, the pride of its owner, has been saved from certain death by the skill of our men. The tulip tree shown here (in the Tiffany estate on Long Island) was filled with cement from top to bottom and given a new lease of life.

Let us care for your trees as they should be cared for. We have the skill, the men, and the experience to give you perfect service. Our work is guaranteed and we inspect it every six months without expense to you.

We will examine your trees, tell you what they need and what it will cost to fix them up. This will cost you nothing.

Why not send to-day for one of our representatives and go over things with him?

Send for Our Free Book
"Making Good" in Trees

Explains the care your trees need, how we work, and what we have done for others and can do for you.

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DISABILITY INSURANCE costing Sixty Dollars a year, (payable semi-annually or quarterly if you prefer) will provide an income of

$25 per week while you are disabled by EITHER ACCIDENT OR ILLNESS.

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$5,000 to your family if your ACCIDENT results fatally.

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TELL ME HOW TO ÆTNA-IZE MY INCOME

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Occupation_____ Business Address _____

SPRING HOUSECLEANING

By ELIZABETH DANDRIDGE

THE last days of Winter should find one with well defined ideas of what will be necessary in the way of cleansing, renewing and re-arranging in the annual housecleaning, which has especial importance when done in the Spring. Fall housecleaning seldom assumes the scope and importance of the Spring overhauling, as one usually prefers that fresh paint and paper and accompanying renewals should come at a time when the soot and dust nuisance incident to Winter fires is abated.

In these days of factories and shops, when efficient help in the kitchen is almost unknown and one is fortunate if they can get a woman to come in occasionally and help with the weekly sweeping and dusting, it is inevitable that the brunt of the housecleaning must fall on the housewife. True, one can hire men to come in and do the heavy work of moving furniture, cleaning and laying carpets and washing windows, but this by no means covers the whole business of Spring housecleaning, and when this is done it is necessary to have everything in shape so that as much as possible may be done in the time one feels able to employ the men, for their services are by no means cheap—five dollars a day being as low as one can expect the services of two capable men, and often their charges much exceed that figure.

The best plan then, whether the work is done in this way or by home talent, is to have everything as far advanced as possible before the actual work of taking down beds and cleaning carpets begins. Closets must be thoroughly cleaned and put in order before anything else is undertaken, bureau drawers sorted and arranged, curtains and portières taken down and all small objects of art or ornaments cleaned and placed where there will be no danger of careless handling, soiling or breaking them, so that the work of settling the rooms may go forward rapidly once the carpets are laid.

Where the work must be all or mainly done by the members of the family I have found that it simplifies matters greatly to undertake but one room at a time and to keep the remainder of the house in as good order as possible so as to remove as far as possible the feeling of discomfort that a disordered house always brings.

Always aim to clean the rooms farthest from the kitchen first, beginning with the upstairs and leaving each room settled before tearing up another. Always avoid cleaning a room that will have to have furniture from another room piled into it or much run over first, for it is little satisfaction if, when the last rooms are finished, the first ones already show signs of dust and usage. A good order is, first the bedrooms and upper halls and staircase, then the parlors, sitting-room, lower halls, downstairs bedrooms (if any), dining-room and cellar, and lastly the kitchen.

Always attend to the cleaning of the furnace while yet it is in use, for as soon as cold the soot and ashes gather dampness and cling to the flues and it is difficult to dislodge; take a mild day, when it is possible to let the fire die down, and thoroughly clean flues and smoke-pipe, replacing the pipe and leaving the furnace ready to respond to any call for its services in the changeable weather of early Spring and Summer.

In nearly all houses there will be one or more rooms which will need re-papering, and this will be done in the Spring rather than in the Fall. It goes without saying that wherever paper is to be renewed, all the old paper on the wall should be removed,

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PUTS the seed in the ground—not on top. None blown away or eaten by birds. Makes a beautiful, uniform lawn certain in the shortest time. Saves enough seed to pay for itself. Run easily by one person. No matter how small your lawn you can afford to have this seeder.

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but this adds materially to the cost of the work, as the paperhangers charge the same for removing paper as for hanging, often more than the actual cost of the paper; it therefore becomes an object with many to do this part of the work themselves.

The ceiling paper is always the most difficult to remove, owing to the irksome climbing of step ladders and the proneness to adhere closely to the plaster that ceiling paper often shows. I have found, however, an ideal way to deal with this part of the work, especially in rooms on the ground floor. When the furniture and carpets are removed, the hose is brought into the room with the fine spray attached, or if one has no water system, a force pump will answer every purpose, and the ceiling quickly and thoroughly wet down, taking especial pains to wet the border and the angle of the wall where it meets the ceiling paper. If the wetting is thoroughly done the ceiling paper will come off almost entire and in less time than it takes to tell you about it. I have frequently seen large ceiling papers come down in two pieces, bringing a good share of the border and side wall-paper along. If it is desired to remove ceiling papers from an upper room it will be necessary for two or more to handle the job, so that the water may be wiped up quickly before it has time to soak through to the ceiling below, but once one has tried this labor-saving method they will never go back to the tedious and painful method of scraping paper off by hand with a knife. The side walls, unfortunately, cannot be handled so well in this way, as there is no force of gravity, increased by the weight of the water, to bring them down, but where there are two or three to handle the work it may be much hastened by wetting one wall at a time and peeling it before it has time to dry, for paper only sticks the tighter once it begins to dry.

In renewing paper it is well to bear in mind that the drop ceiling is by far the more satisfactory and artistic finish; borders are seldom satisfactory, and one soon tires of the prettiest of them, and they always give a common effect to a room, but a handsome side wall, preferably of the ingrain or two-toned papers, with a white, cream or light colored ceiling, is always satisfactory, and by replacing the ceiling when soiled a sidewall can be made to do service two or three years longer than would otherwise be the case, the new ceiling making the sidewall itself appear new.

In the use of rugs on hardwood floors, or their substitutes in filling (painted border or matting) greatly simplifies the cleaning of floors, as rugs may be sent to the cleaner, who will call for them in the morning and deliver them, all sweet and clean, in time to lay on the floors at the end of the day's cleaning, if desired. Mattings are so easily cleaned at home that no woman need hesitate to undertake them, as it is only necessary to lay them on the grass and sweep each side thoroughly and relay on the floor. Any grease spots may be easily removed with gasoline, but do not do that on the lawn, or it will make dead spots on the grass.

When the mattings are relaid, if found faded and somewhat shabby, it will be found that they can be greatly improved by going over them, a breadth at a time, with hot diamond dyes of the color of the matting. Of course, the mattings will be made up like carpets.

If the house is fitted with storm windows it will simplify matters if the inside windows are washed—those which may be taken out—before the storm windows are taken down, as this can be done regardless of the weather, often a decided advantage.

Sundial in the Garden of Mrs. Leopold Stern, West End, N. J

YOUR garden is not complete without a sundial, the time-piece of the ages.

Our sundials are designed to harmonize with every type of garden treatment. They are both decorative and artistic. Constructed of marble, stone and Pompeian stone with dials of hand-chased brass, they are practically everlasting.

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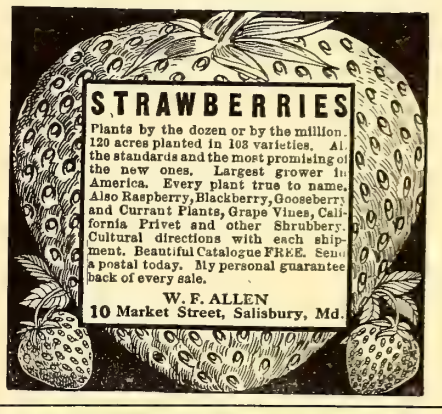

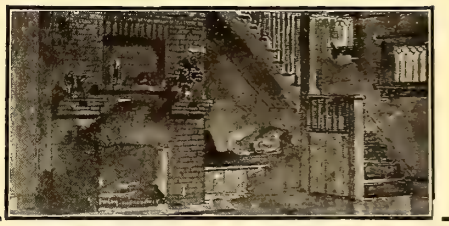

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Send $1.00 for my new and complete book—Bungalows showing floor plans, interior and exterior perspective from photographs with prices for the completed building.

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KALAKA Fertilized grass seed

Packed in 5 pound boxes at $1.00 per box, express paid *east*, or $1.25 *west* of Omaha. Write and ask for prices on special mixtures for special locations and purposes. Order today and have the best seed money can buy. Get our *free* lawn book.

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Filter Your Entire Water Supply

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Paddock Water Filter

You will then use pure water for drinking and all household purposes.

Write to-day for catalog.

Atlantic Filter Company
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Dear Mother:

If I could come, feeling that my children would not be a burden to you, I would gladly do so, because the house is too heavy a burden for me. It is impossible to meet the notes on the home and provide a comfortable living for the children.

As I see the little sum of money, that George left, growing smaller each day, the uncertainty of the future has assumed a serious aspect. The shock of George's sudden death was enough without this unexpected worry of things which are all new to me. Devotedly,

Charlotte.

Travelers Insurance Co.,
Hartford, Conn.

Gentlemen:

Please accept my thanks for your kind remittances which you have sent me each month, following the sudden death of my husband. It is hardly necessary for me to tell you how much this monthly income has saved me from worry and possible privation.

My husband's untimely death left me the care of two children and I shudder as I think what might have become of us without his forethought and your promptness. Very truly yours,

(Mrs. J. B. F) Sarah B. F——

WHICH OF THESE LETTERS WOULD YOUR WIFE WRITE?

AS the father, upon your forethought and labor rest the welfare, decent living and happiness of your wife and children. In case of your death, our Guaranteed Low Cost Monthly Income Policy means a monthly income for your family—not a princely fortune, but enough to "make both ends meet."

Our interesting booklet tells all about it; write for one today.

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HARTFORD, CONN.

Please send me particulars regarding Guaranteed Low Cost Monthly Income Policy.

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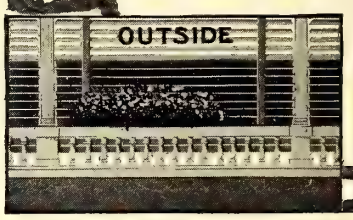
The Burlington Venetian Blind

In your windows it makes your room delightfully cool. Enclose your porch with the Burlington Venetian Blind and you have added a healthful out-of-door room to your home.

The Burlington Venetian Blind can be raised or lowered at will, and can be adjusted to any angle to suit the height of the sun.

The Burlington Venetian Blind is made to order only. Our illustrated catalog, telling about the various styles, will be mailed to you on request.



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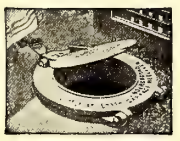
For Clean Grounds and Buildings

THE STEPHENSON
LYNN TRADE MARK MASS

Underground Refuse Disposal



Underground Garbage Receiver. Opens with the foot. Dogs, cats, flies have no chance to get at the garbage. A clean back yard.

The **Under-floor Refuse Receiver** for sweepings and oily waste in the **garage,** ashes and waste in the cellar, yard or street.

Underground Earth Closet with or without portable steel house. For farms, camps, etc. Steel house very convenient for use as a bath house.

Send for circular about each.
Sold direct. 9 years in use.

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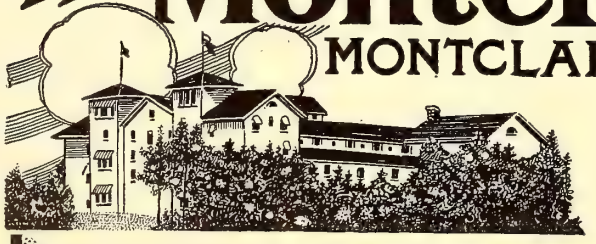
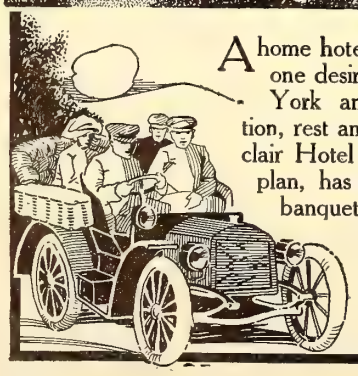
The Montclair
MONTCLAIR, N. J.





A home hotel for the family, the business man and any one desiring a residence within an hour from New York and enjoy the delights of country elevation, rest and environments. This is what the Montclair Hotel offers. It is operated on the American plan, has grillroom with facilities for private parties, banquets, dances under the direction of T. Edmund Krumbholz of the Kirkwood, Camden, S. C. and the Sagamore, on Lake George.

Mr. R. C. Millard, Resident Manager, will reply to all inquiries and call upon request.

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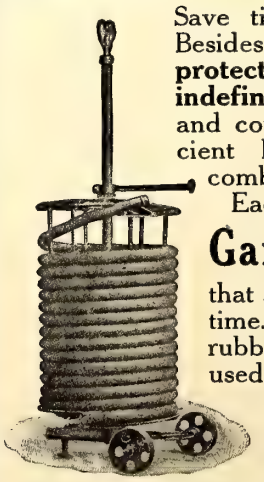

Save time and money. Besides, its spiral wind **protects life of hose indefinitely.** Also neat and compact, with efficient lawn-sprinkler combined.

Each, - $4.00 net

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that stands the test of time. None but pure rubber and best fabric used in its construction. **Buy direct and save unnecessary profits.**

Price, including Nozzle and Couplings, complete, 10 cents per foot net.

JOHN SIMMONS CO.
104-110 Centre Street New York City

And speaking of windows, brings up the subject of curtains—probably one of the most dreaded tasks of housecleaning. For years I followed the time-honored method of washing, starching and pinning the sheets on the floor, each scallop religiously pulled out and pinned in place, a back-breaking and tedious operation, as no room in the house, available, was large enough to allow of more than two pairs on the floor at the same time; since then, however, I have learned a better and easier way, which is to take a bright, sunny day with not too much wind, and wash the curtains in the usual way, using a good washing machine, if one has one; rinsing, bluing (if clear white is desired), using a coffee color if écru curtains are preferred, and hanging at once on the line. No starching will be required if the curtains were starched the previous year and but little, if not; a stiffly starched curtain is inartistic, and so patently done over that it should be tabooed from all good housekeeping.

Two or more pairs of curtains may be undertaken at once. Hang them on the line across the middle, so that the top and bottom will hang evenly together, and have the line low enough so that the top may be readily reached, but do not let the curtains touch the ground. Use a perfectly clean, but not too harsh, whisk broom, and, commencing at one end of the line, brush the curtain straight down from the line to the ground, taking each one in turn until that side of the line is gone over, then repeating the brushing on the opposite side and continuing from curtain to curtain and side to side until the curtains are nearly or quite dry. When thoroughly dry on the line they may be taken down and hung at once on the poles, when they will look like new

But it is to be hoped that no heavy housecleaning has been undertaken without a due regard to the fact that housecleaning is hungry work, and that the services of the boys and men of the family will be far more cheerfully rendered if their appetites are catered to to a reasonable extent, and a simple lunch in the middle of the forenoon—though it be but an appetizing sandwich and cup of tea, often bridges over a point where some untoward incident or dragging task has brought patience and nerves to the breaking point. There will be little leisure to cook and fuss in the kitchen while the actual work of cleaning is under way, but it is quite possible to provide a supply of hearty and appetizing food that may be placed in a cool cellar or refrigerator and make much actual cooking unnecessary. A good consommé put up in pint cans ready for immediate use is easily prepared and the meat from the bones will make a substantial hash, which may be rendered more dainty and appetizing by piling on it some crisp lettuce leaves and dressing it with a good mayonnaise, of which there should be a generous supply in the refrigerator. Pork and beans always suit the masculine appetite, and most feminine ones, too, and hard boiled eggs are capable of many variations not the least satisfactory of which is chopped, mixed with mayonnaise and used as a sandwich filling. Instead of sitting down tired and disheveled to an untidy table with anything one could pick up handy to eat, try having something rather extra which may be prepared beforehand and make no extra call on one's time and strength, but put on the table neatly and in shape to tempt one's appetite and give real pleasure, and see how much more cheerfully one returns to the work before them! But let the food be really nourishing and something that is easily digested; no use to make one's digestive system work overtime because the body must.

Rustic Hickory Furniture for Parks and Lawns

It's strictly in keeping with nature, and adds to the beauty of the surroundings. Nothing quite so inviting as plenty of large, roomy chairs or wide, comfortable settees made of Rustic Hickory.

The framework of Selected Hickory Saplings—bent into graceful curves and angles—seats and backs of hand-woven flexible inner strips—all in the natural wood. Over one hundred styles of *Chairs, Rockers, Settees, Tables, Swings, Couches, Tabourets, Lawn Seats, Pergolas, Sideboards, Rustic Benches, Hanging Baskets, Lawn Vases, Costumers, Window Boxes, Dining Chairs, Fences, Summer Houses,* and a great variety of other pieces.

Rustic Hickory Furniture is so reasonable in price, anyone can afford it. If your dealer cannot supply you write us. Catalogue free.

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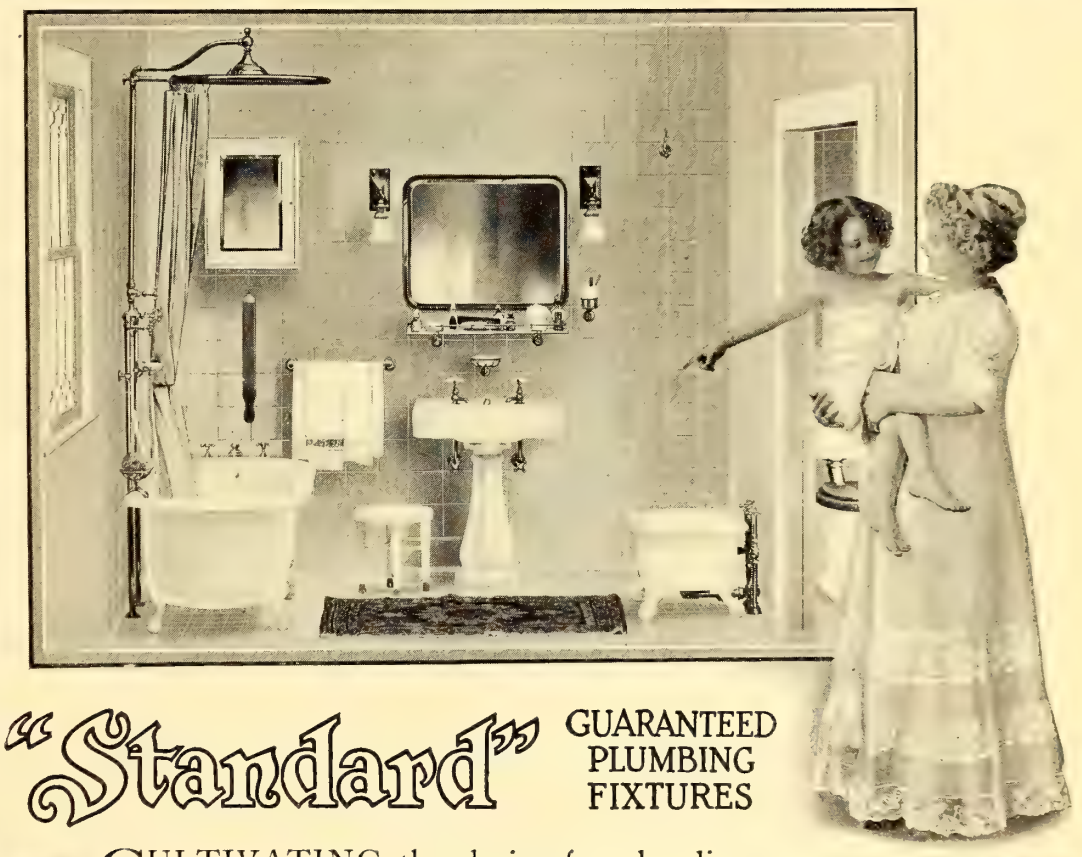

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CULTIVATING the desire for cleanliness among children used to be difficult. Since the advent of "Standard" Sanitary Bathroom fixtures, habits of cleanliness have not needed cultivating. Their attraction creates the desire to bathe. The practical utility, the beauty and the enduring quality of "Standard" fixtures makes them an everlasting joy to every generation in the home.

Genuine "Standard" fixtures for the Home and for School, Office Buildings, Public Institutions, etc., are identified by the Green and Gold Label, with the exception of one brand of baths bearing the Red and Black Label, which, while of the first quality of manufacture, have a slightly thinner enameling, and thus meet the requirements of those who demand "Standard" quality at less expense. All "Standard" fixtures, with care, will last a lifetime. And no fixture is genuine *unless it bears the guarantee label.* In order to avoid the substitution of inferior fixtures, specify "Standard" goods in writing (not verbally) and make sure that you get them.

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St. Louis....100 N. Fourth Street
Nashville.....315 Tenth Avenue, So.
New Orleans, Baronne & St. Joseph Sts.
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Boston..... John Hancock Bldg.
Louisville.....319-23 W. Main Street
Cleveland.....648 Huron Road, S. E.
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Houston, Tex., Preston and Smith Sts.
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¶ I want you to know **Bay State Brick** and **Cement Coating** is being specified by the leading architects and contractors not only as a coating on cement, stucco, and brick surfaces to protect them against moisture, but on high grade interior work on both wood and plaster.

¶ When you need a coating for cement and want something that will stand up and give you protection and durability, also a pleasing finish, use the **Bay State Brick and Cement Coating,** which is the result of research and experimental work for more than a decade. Wherever it is used on stucco, concrete, wood, or plaster, it stands up better than any other.

¶ You know how necessary it is to protect concrete surfaces against dampness. My coating is damp proof and gives a pleasing appearance without destroying the texture of concrete and in addition is a fire retarder.

¶ Write for particulars about **Bay State Brick and Cement Coating.** Address for booklet No. 3.

Wadsworth, Howland & Co., Inc.

Paint and Varnish Makers and Lead Corroders

82-84 Washington Street Boston, Mass.

For Your Country Home

You can secure at small cost a movable power plant that will convert your country home into a modern city dwelling Electric light at less than city cost. water pressure system of your own with lots of water for lawn, garden and fire protection. and additional power for churn, pump or cream separator Tell us your problem and get full information.

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If You Have A Hose You Need a "Detachable" Hose Reel

¶ Your hose will last three times as long—always free from kinks and twists. Hose is attached permanently to reel which slips on faucet, locks and is ready for use. Reel revolves on the faucet to wind or unwind the hose. Get it on trial—it's guaranteed. Send for a copy of "Useful Things for the Lawn." It fully describes the "Detachable" Hose Reel and the "Easy Emptying" Grass Catcher for Lawn Mowers and a number of other mighty valuable lawn articles.

THE SPECIALTY MFG. CO.
1045 Raymond Ave., St. Paul, Minn.

SANITATION OF SWIMMING POOLS

THE work of protecting and purifying public water supplies has suggested the investigation of the condition of a related subject—the water of swimming pools, which forms the subject of a paper recently read before the American Society of Municipal Improvement by Mr. Melvin C. Whipple and Mr. John W. M. Bunker, the abstract of which, here following, appeared in the *Municipal Journal.*

Within a few years the possibility has been realized of such pools becoming a means for the transmission of disease. It is believed that nose and throat affections may be, and often are, transmitted by the water of the swimming pool. The danger of the transmission of intestinal diseases is less only because such diseases are more rigorously controlled and isolated. At least one record is at hand of an epidemic of typhoid fever which was spread by a swimming pool.

Conclusive data are at hand to show that, in spite of the utmost care in enforcing sanitary and hygienic regulations upon users of a pool, each person adds his quota of bacterial contamination to the water. As the organic matter which enters the water is kept at a relatively high temperature, it offers a good culture medium. It has been found that a temperature of 75 deg. Fahr. greatly favors bacterial growth under these conditions over that of 70 deg.

Consecutive chemical analyses made at various colleges in the United States have shown that the organic contamination increases progressively from day to day while a pool is in use. Bacteriological analyses show a progressive increase up to the point where the Malthusian Law asserts itself to bring about a balance.

Experiments have shown that disinfection will take care of the bacterial contamination of swimming pools. Ordinary bleaching powder, or calcium hypochlorite, now so widely used in water supplies, has been selected by all as the most efficient substance for this purpose.

Results achieved point to the efficiency of chloride of lime as a disinfectant, when applied in quantities that will furnish from 0.4 to 1.0 part per million of available chlorine at intervals of one to three days.

This conclusion has been made more certain in the light of confirmatory evidence from various institutions, where accurate and careful observations have been made of conditions governing the use of pools.

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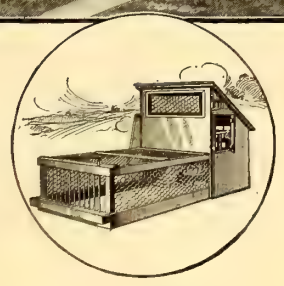

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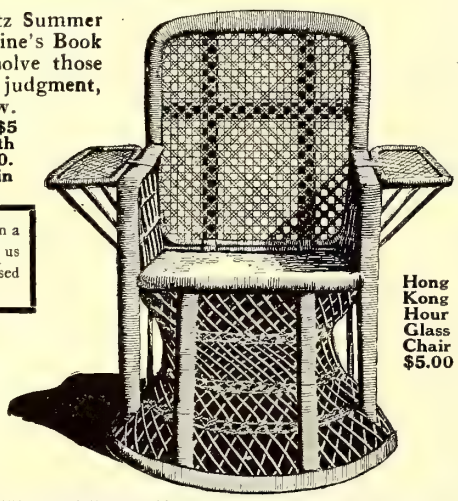

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PALESTINE DEPICTED AND DESCRIBED. By G. E. Franklin, F.R.G.S. New York: E. P. Dutton & Co., 1911. Cloth, 8vo. Illustrated. 219 pp. Price, $3 net.

The Holy Land described by a traveler who has visited that locality more than a score of times and who knows it from north to south and from east to west as well as the ordinary man knows his own street is something which will appeal to every reader. Mr. G. E. Franklin, F.R.G.S., the celebrated Oriental traveler, has just written such a book, and illustrated it with some hundreds of photographs taken by himself of scenes and views associated with all the most sacred and important events recorded in the Old and New Testaments.

The volume, entitled "Palestine Depicted and Described," is a remarkably handsome and entertaining one, packed full of information, many items of which have never before been published, and embracing not only descriptions of the scenery and historical data of the land, but also teeming with anecdote, incident, folk-lore, legend and the customs of the land interpretative of Bible language, phrases, parables and narratives.

The aim of the author in writing this work has been to produce a useful book; one that shall be useful to the student who wishes to know something of the inner life, social amenities and economic conditions of the country; a book interesting to the general reader who wishes to know something of what the land is like; and most certainly useful to the tourist, in that—while avoiding the dry style of a guide book—information that will be of assistance will be found on every page. Palestine is one of the most interesting of the lands of the earth, but it is a land that must be seen more than once or twice in order to get a correct impression of its salient features. The tourist who visits the country in the Autumn sees a totally different country to those who visit it during the Spring months and many persons who have made a second visit to Palestine have been surprised to find of how much the impressions formed during the former visit required revising. Mr. Franklin has made some twenty-two visits—some of them protracted ones—to the country, and been privileged to enjoy the close friendship of many of the residents, including sheiks and consuls, besides explorers and archæologists he has met from time to time, and in response to many appeals he now lays the results of his experience open to the public.

BOOK OF THE TARPON. By A. W. Dimmock, New York: Outing Publishing Co., 1911. Cloth, 16mo. 256 pages. Price, $2.00 net.

This is one of the most interesting volumes published on any American sport. No other sport, according to the author, is carried on amid natural surroundings more beautiful and healthful. No other outdoor sport offers greater legitimate excitement, and Mr. Dimmock's enthusiasm for his subject makes the book thoroughly worth the reader's attention.

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THE CAMBRIDGE MEDIÆVAL HISTORY. Edited by H. M. Gwatkin, M.A., and J. P. Whitney, B.D. Vol. I—"The Christian Roman Empire." By Professor H. M. Gwatkin, Professor J. S. Reed, Dr. Norman H. Baynes, Rev. T. M. Lindsay, C. H. Turner, M.A., Dr. Martin Bang, Dr. M. Manitius, Dr. Ludwig Schmidt, Dr. M. Christian Pfister, Dr. T. Peisker, Dr. F. J. Haverfield, F. G. M. Beck, M.A., Ernest Barker, M.A., Professor Maurice Dumoulin, E. W. Brooks, M.A., Alice Gardner, Dom. E. C. Butler, Professor Paul Vinogradoff, Rev. H. F. Stewart, and Professor W. R. Lethaby. New York: The Macmillan Company, 1911. Cloth 8vo. Maps; 754 pp. Price, $5.00 net.

The Syndics of the Cambridge University Press, on the completion of "The Cambridge Modern History," undertook to publish a comprehensive history of mediæval times, drawn up on similar lines. The work covers the period from Constantine to the close of the Middle Ages, and is to appear in eight volumes, of which this is the first.

The principles which have guided the conception of this work are those laid down by the late Lord Acton for "The Cambridge Modern History," though experience has suggested some improvements of detail in the mode of carrying these principles out.

The need of some such work is evident, for there is nothing resembling it in the English language. Gibbon deals mainly with the Empire, and with the Teuton, the Slav, the Magyar, the Turk, and even the Saracen, chiefly in their connection with the Empire. Even the great French work of Lavisse and Rambaud deals with the Middles Ages on a much smaller scale than is here contemplated. The present work is to cover the entire field of European mediæval history, and in every chapter will sum up recent research upon the subject.

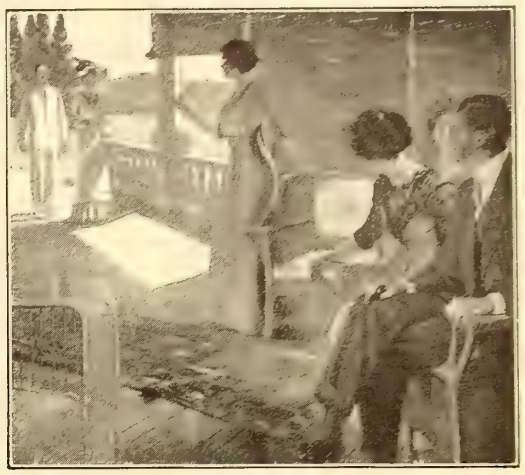
This first volume deals with the period of the Fall of the Roman Empire in the West, and no more scholarly work than this has appeared in English.

THE PAPACY AND MODERN TIMES. By Rev. William Barry, D.D. New York: Henry Holt & Company, 1912. Cloth 16mo.; 256 pp. Price, 50 cents net.

The writer of this book is well known as an author of the "Papal Monarchy" and the present volume is a story of the rise and fall of Temporal Power of the Papacy, well written and philosophical in presenting a résumé of the questions arising from modern knowledge and the separation of church and state.

PINS AND PINCUSHIONS. By E. D. Longman and S. Loch. New York: Longmans, Green & Co., 1911. Cloth, 8vo. Illustrated by 43 plates. 188 pages. Price, $3 net.

This is one of the most entertaining volumes to one interested in the byways of collecting, well written and copiously illustrated. The first chapter presents a history of the pin from ancient times to the present day, and the layman is surprised to find so much worth while, knowing that he might have missed but for a perusal of this historical résumé. From the time of Cleopatra to the present pins and pincushions have rendered important service to humanity, and the authors have succeeded in making those of us who take up the subject for the first time feel that we have, in the past, been neglectful of our duty in slighting these little "hold-togethers" and their lore.



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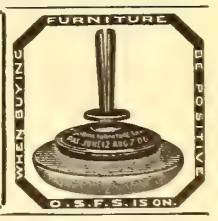

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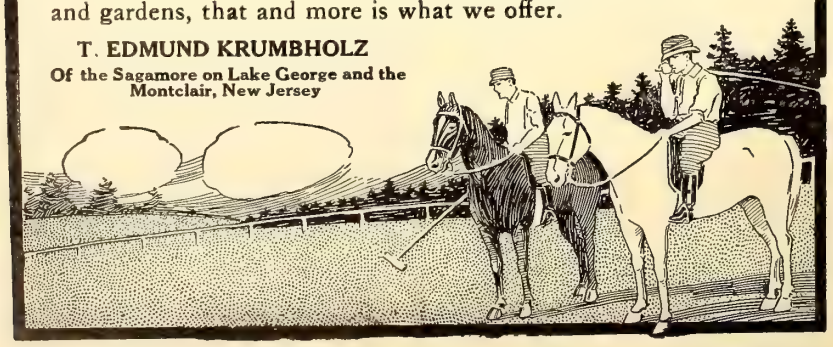

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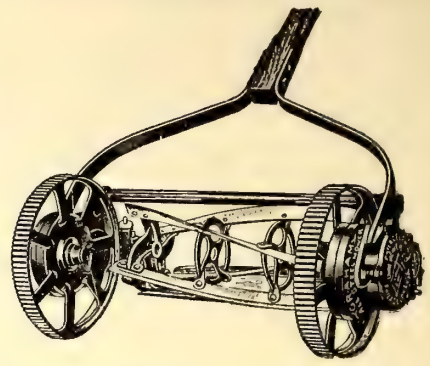

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THE PROPER CARE OF SHADE TREES IN CITIES AND TOWNS

By ISAAC MOTES

THE man with even an elementary knowledge of forestry is often filled with indignation while walking the streets of cities and towns, when he sees beautiful shade trees being tortured to death by slow degrees. Even city foresters, who ought to know better, seldom give their trees ideal conditions for growth, though this must surely be because, with so many to look after, such an extent of city streets, parkways and parks to care for, they haven't the time which they need to devote to the trees. This is all the more to be regretted, because with plenty of water for sprinkling trees will grow better than in the forest, for it is lack of moisture more than lack of a rich soil, which causes a tree to languish. It is sad to see a tree starved for lack of moisture, or murdered by being crowded too closely between the edge of the sidewalk and the curbstone. Not only should the trunk of the tree not be crowded, but there should be a strip wide enough to make sure of the tree's getting enough water where it stands in locations which make it impossible to sprinkle. And this strip should be level, and be kept always loose and loamy.

It is certainly a reflection upon the city forester, or the owner of a fine residence block in city or town, that trees are more graceful and healthy in natural groves than in yards and parks and along city streets. It is safe to say that at least one-fifth of the trees you see along the streets of a city are defective in some particular. They have rotten, deformed trunks, or they have scars where they have been wired to stakes, or else trees which require but little moisture have received too much, and this has caused a fungus growth upon their trunks, or a watery, spongy rot to attack the heart of the tree, and when this is the case with any tree it is doomed, though it may succeed in living on for perhaps a dozen years.

The tree planter should know the nature especially of every tree he sets out near the sidewalk. He should look ahead and be able to tell how much room the tree will need twenty, thirty, forty or fifty years hence.

He should know how long the tree may be reasonably expected to live, and how large its trunk will be at that time, for some trees live for centuries, and grow until the year of their death, while others live only thirty, forty or fifty years, and stop growing years before they die. If a long-lived tree, one which grows large and tall, there should be plenty of room for the trunk to increase in size, and for moisture to soak into the ground around it. If the space between the outer edge of the sidewalk and the curbstone is narrow a segment of the sidewalk should be left out, its width depending upon the character of the tree and the probable size to which it will grow

There should be no grass around young trees, but rather a circle of bare, level earth, to enable trees to drink in all the moisture they can, in order to form a good root growth, but later, after the trees get larger, this bare place may be allowed to grow up in grass, especially if the tree stands upon level ground. If on a hilside, and the tree is a moisture demanding one, like the cottonwood, boxelder, black walnut or catalpa, the turf around it should be kept somewhat loosened by sticking a slender, sharp pointed pick into the earth and prying it up slightly, but not enough to kill the grass, thus enabling more moisture to soak into the ground.

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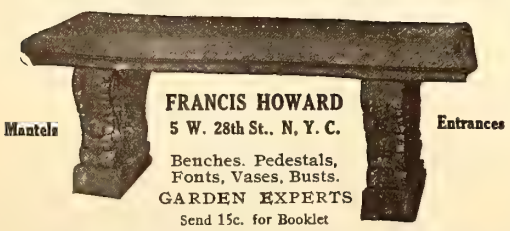

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In large parks also, where no sprinkling is done it is important that this circle of loose, bare earth should be left around all trees which are moisture demanding, and which stand on hillsides, so the ground may absorb all the moisture possible after every rain during the late Spring and the long, hot Summers, and immediately after every rain which beats the ground down hard this circle should be dug up again, putting it in shape to catch more moisture during the next rain, also forming a dust mulch to assist in retaining the moisture longer, should no more rain fall for a long time. This digging and all other cultivation should stop, however, in the late Summer, since cultivation induces growth and growth should stop in August, in order to give the new wood formed that season time to toughen and harden before cold weather. If the cultivation is continued too late the buds will be kept in a swollen condition, and will be in danger of early freezing, especially in northern latitudes.

The tree planter should also know something about the character of a tree's root system, whether its roots go down deep in the earth or not. If the roots are shallow the tree should be planted rather deep in loose, loamy soil, in order to make sure that the roots extending out towards the street may pass under the curbstone, which may have been let into the ground from twelve to sixteen inches, for if they strike it they will be turned back, and may come to the top of the ground, or form a snarled bunch of roots against the curbstone, just below the surface of the ground, greatly retarding the growth of the tree.

The city tree planter or forester should be careful also to prune his trees properly. This means that the limbs should not be cut off too close to the body of the tree, nor yet should they be left too long. The length of the nub left should depend upon the size of the limb. A good rule is to let the length equal one-quarter the diameter of the limb cut off. The cut should preferably be somewhat slanting, and the cut place should be painted with white paint containing a good deal of oil or else use a grafting or coaltar wax.

Some of these preparations should be used every time a cut is made upon a tree, whether in pruning off lower limbs or hewing off the bark slightly where it is necessary to drive a staple into a tree, as in case of fastening a woven wire fence to a tree in the yard, or where you cut off a limb higher up in a tree to prevent the shade from being too dense, or to prevent the rubbing together of two limbs. It should be remembered that pruning out limbs in the crown of the trees is as necessary as cutting off low limbs, where the trees stand in grassy yards or lawns, and especially if they stand somewhat thick, for the thin tops allow the sunshine to fall upon the grass and give it luxuriance. It is more necessary that trees have thin tops when standing in grassy yards, parks and lawns than when standing anywhere else.

The tree planter should know just what trees are moisture demanding and which are drouth enduring, and give them just the amount of moisture they need. The drouth enduring trees will do reasonably well anywhere.

It is easily possible, however, to give such trees too much moisture. To trees which do best in dry sections, an excess of moisture is a detriment.

Among the drouth enduring trees suitable for ornamental planting in yards, parks and lawns, are the red cedar, most of the pines, mesquit, Russian mulberry, white elm, hackberry, silver maple and most

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of the other maples, chestnut oak, Mexican walnut, Persian walnut, bur-oak, white and Lombardy poplar, Russian olive, Chinese arborvitae, chestnut, white and Norway spruce, European larch, white and Douglas fir and honey locust.

Among the moisture demanding trees are the black walnut, persimmon, both native and Japanese, white oak, pin oak, white hickory, pecan, cottonwood, hardy catalpa, sycamore, willows and elms, red maple and other maples (most of the maples seem to do well on either dry or moist soils), the boxelder and the linden. These should have plenty of room, and if standing on narrow strips between the curbstone and the sidewalk there should be a circular gap left in one edge of the sidewalk to catch as much water as possible.

SOME OF THE MANY USES TO WHICH PAPER MAY BE PUT

WHILE there is nothing like linen for paper-making, many other things will serve as substitutes. For instance, patents have been issued in various countries, says *Tit Bits,* for the manufacture of paper from barley, oats, rice, Indian corn, peas, beans, alfalfa, ramie, pine-needles, sugar-cane refuse, jute, moss, seaweed, tobacco, lichens, the leaves and bark of trees, beets, potatoes, and other equally strange things. In most cases the price of manufacture is excessive when we consider the quality of the product. The great bulk of our paper—not the best, but that most commonly used—is made, as most people know, of the wood of certain coniferous trees, chiefly spruce and larch.

Paper can be made from nearly anything, and nearly anything can be made from paper.

With compressed paper are made wheels, rails, cannon, horseshoes, polishers for gems, bicycles, and asphalted tubes for gas or electric wires.

With wood pulp and zinc sulphate there has been an attempt, in Berlin, to make artificial bricks for paving. After subjecting them to a pressure of 2,000 tons per cubic centimetre, they are baked for forty-eight hours. In similar fashion are made roofing tiles and water pipes. Telegraph poles made of rolled sheets of paper are hollow, lighter than wood, and resist weather well.

In Japan they make, of paper, clothing, window frames, lanterns, umbrellas, handkerchiefs, artificial leather, etc. In the United States, and even in Germany, are made paper coffins. In Germany they make paper barrels, vases, and milk bottles.

Straw hats may now be bought into which enters not an atom of straw. They are made of narrow paper strips, dyed yellow. Artificial sponges are made of cellulose, or paper pulp. One man has taken out a patent for paper thread to be used in sewing shoes, and a brand of artificial silk is made on a basis of paper pulp.

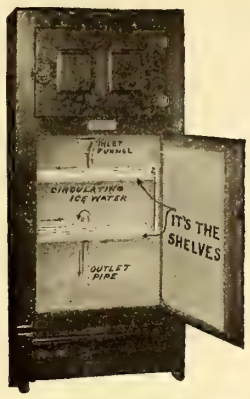
The use of paper in industry may be indefinitely extended. It is employed to make imitation porcelain, for bullets, shoes, billiard-table cloth, sails for boats, boards for building, impermeable bags for cement and powdered substances, boats and vessels for water. There has been made a paper stove, which is said to have stood the fire well. Cellulose may be used to prepare a waterproof coating that may be applied like paint. Whole houses have been built of paper; in Norway there is a church, holding 1,000 persons, built entirely of it, even to the belfry.

Automatic Ice Saver Shelves

Made to fit

YOUR REFRIGERATOR

The Ice Man Won't Like It, But You Will



The shelves rest upon the same cleats on which ordinary shelves rest, so that anyone can install them in an instant, as no adjustment is necessary.

¶ Without the Automatic Ice Saver your refrigerator eats up ice. The air in the Food Compartments is much warmer than that in the ice compartments, and this warm air being allowed to circulate freely about the ice, causes the ice to melt rapidly, without rendering the service it should Just as the heat from your furnace has in part been escaping up the chimney, so the ice in your refrigerator has been disappearing down the waste pipe long before anything like its full measure of coldness has been properly utilized, Your ice will work twice if you use Automatic Ice Saver Shelves. As the ice melts the water runs through tubes formed as shelves. These tubes are rust proof and are so constructed that they remain full of ice-cold water—which passes off by gravity overflow. Refrigeration is perfected by the lowered temperature, your food rests on cold shelves—and is in close contact with circulating cold water. The food compartment is absolutely dry. "Sweating" of the drain pipe is abolished —and dryness means increased sanitation.

¶ Housekeeper or maid can readily remove shelves and keep them clean and wholesome by flushing. The inlet pipe is equipped with a funnel which has a trap to prevent the ingress of sediment and dirt. Nothing to get out of order.

Preserves your food. Protects your health.
Lessens your work. Reduces your ice bill.

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Write for further details of this ice-saving and health-preserving invention

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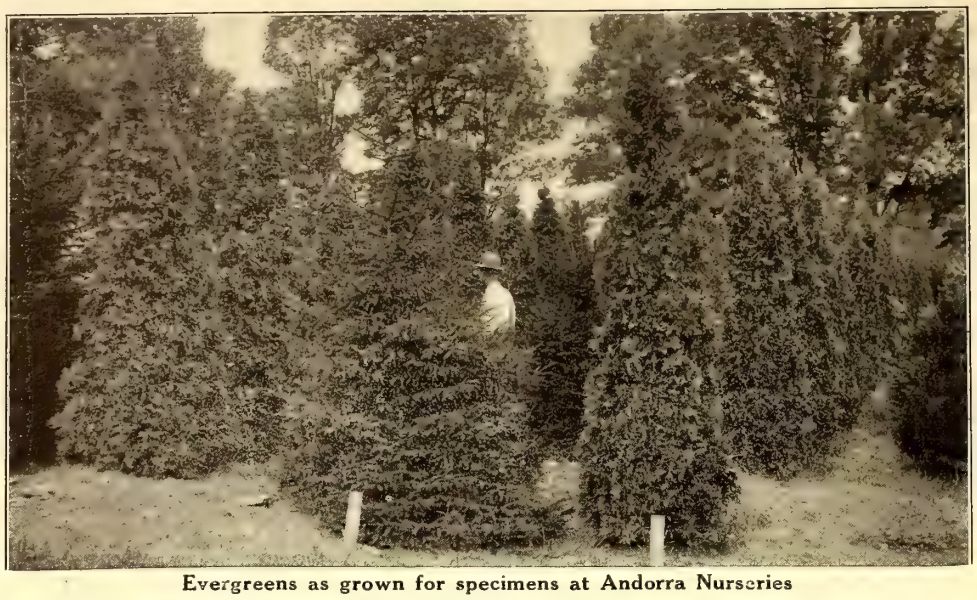

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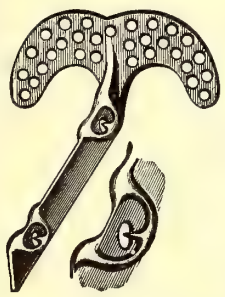

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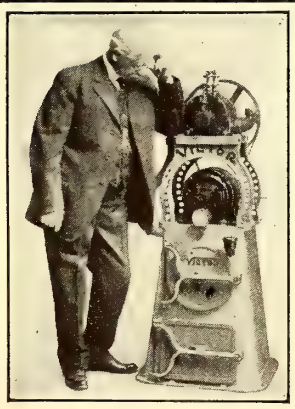

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The cost of installing a Stationary Vacuum Cleaner in an old or new house is very small in comparison with the cost of other things about the house. While it is a difficult matter to make a first class Vacuum Cleaner (the **Victor** is an absolutely first class machine, not equaled by any in the world), it is an easy matter to install the machine after it is made.

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The **Victor** can be set up in a few hours time. It works perfectly noiseless. It is a real "Vacuum Cleaner," not an "air machine."

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A lawn roller whose weight can be adjusted to the conditions of your lawn, garden, tennis court or driveway.

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Why buy one of the old style iron or cement fixed-weight rollers that is generally too heavy or too light to do your lawn the most good, paying for two or three hundred pounds of useless metal—and freight on it as well—when less money will buy the better, more efficient.

"ANYWEIGHT" WATER BALLAST LAWN ROLLER

A difference of 50 pounds may mean success or ruin to your lawn—a half ton machine will spoil it in early spring, while a 200-lb. roller is absolutely useless later in the season. If you desire a fine, soft, springy turf of deep green, instead of a coarse, dead looking patch of grass, use an "Anyweight" Water Ballast Roller—built in 3 sizes, all of 24-inch diameter and of 24, 27 and 32-inch width. Drums boiler riveted or acetylene welded. Weight 115, 124 or 132 lbs. empty—from that "anyweight" up to half a ton when ballasted. Filled in 30 seconds—emptied in a jiffy. Runs easy—lasts a lifetime.

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115 lbs to ½ ton

A ONE-STREET VILLAGE

ACCORDING to a writer in *The Fruit Magazine* there are many small villages in the world that have only one street, but Lerwick, in Shetland, besides having only a single street, possesses only one tree, and it is not a very tall one, either. There are no land birds there, not even a sparrow, but the seagulls are plentiful. The inhabitants of Shetland are very proud of their tree and very kind to the gulls, of whom the children make pets. Children who are brought for the first time to see the wonders of one-streeted Lerwick are always shown as a great curiosity "the only tree in Shetland."

The seagulls are the sparrows of Lerwick, and as such they have a greater share in the town's life than the sparrows of London. In the morning you will note that a seagull sits on every chimney top. Seagulls swoop and hover over every roof in town. The air is full of their strange, high, plaintive, haunting cries. Every house has its own familiar seagulls and every area its own band of them. But they never mix. The children in each house have a pet name for their own particular gulls, and, having called them by those names, they feed them every day.

Each seagull knows what is meant for him. No bird attached to one house ever seeks to eat the food scattered from the house next door. He does not dare to do so. So, all day long, the seagulls hover and call over the roofs of Lerwick. The people of the town, if they come across a little pile of rice laid upon the roadway, step over it with care. They know that it has been placed there for some seagull. And at night the seagulls leave their appointed chimney pots and fly gracefully away to their resting places on the rocks of the Isle of Noss.

MINING IN THE STONE AGE

IT is known, says a writer in *Harper's Weekly,* that many of the mines now worked were worked by the Romans, and that the Roman miners did nothing but continue the work begun by the Gauls, who were habituated to the use of metals.

The first mining was done in the stone age. The mines of cobaltiferous copper, in Spain, date from a prehistoric time. These mines are distinguished by a singular arrangement of the ways of access. Instead of horizontal galleries along the sides of the mine, there are vertical chimneys, like wells, metres deep, ending in metal strata. The arrangement of these primitive shafts may have been planned to make it easy for the overseers of the mines to watch the slaves as they worked, and also to prevent the entrance of wild beasts. That the mines were worked in prehistoric times was demonstrated by the discovery of fifteen skeletons of men, who, presumably, were killed by a cave-in. Some of them lay under rocks. In their hands were heavy tools, hatchets made of stone, and picks carved from the bones of animals. The skeletons were of great height and of powerful structure; the thumbs of the enormous hands were twice the length of the thumb of the modern workman. But though so tall, the men were of excessively narrow build, as was shown by the width of the places in which they worked. The veins of clay were removed by the hand, as is shown by innumerable finger marks.

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EXCELSIOR "RUST PROOF"
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FENCE-FLOWER-BED GUARD-TRELLIS-TREE PROTECTORS-ETC

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EXCELSIOR "RUST-PROOF" Fences are first completely formed, and then dipped slowly into pure melted zinc. There isn't a spot which is not covered, and the entire fabric is welded into one piece.

EXCELSIOR "RUST-PROOF" Fences last for many years in any climate without a drop of paint. They are tasteful in design, and afford perfect protection to grounds or garden.

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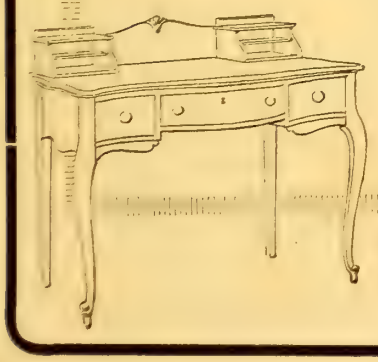
Our exhibition of Spring and Summer Styles makes plain to all that furniture "built Flint Quality" is distinctly an artistic production, however simple in character or low in price.

(Booklet illustrating Spring and Summer Styles mailed on request.)



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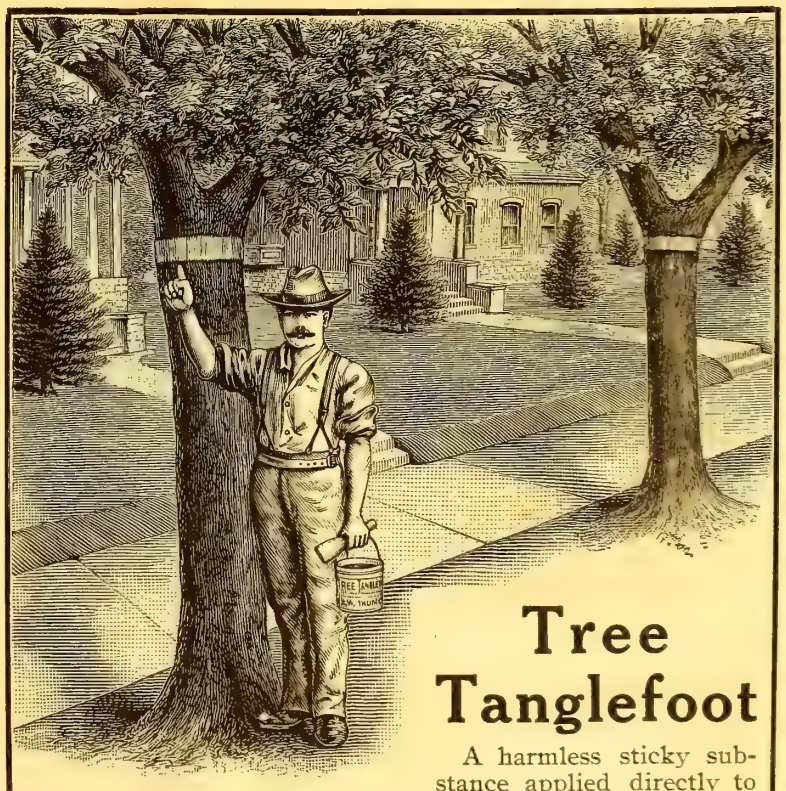

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Price: 1-lb. cans, 30c.; 3-lb. cans, 85c; 10-lb. cans, $2.65; 20-lb cans, $4.80. For sale by all reliable seed houses.

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Manufacturers of Tanglefoot Fly Paper and Tree Tanglefoot. Send for Booklet.

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and you'd get a perfect tire.

Any tire that bears the name "Diamond" in raised letters on its side is a safe tire to buy. *The name "Diamond" is your assurance* that the tire that bears it is worthy to uphold the Diamond prestige for greatest mileage and most satisfactory service.

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AMERICAN HOMES and GARDENS

MAY, 1912
Vol. IX. No. 5

MUNN & CO., Inc., Publishers
NEW YORK, N. Y.

PRICE 50 CENTS
$3.00 A YEAR

Reo the Fifth---$1,055

It Took 25 Years to Build It

By R. E. Olds, Designer

I have spent 25 years in building automobiles. Reo the Fifth is my 24th model

I have watched every improvement, all the world over, from the very start of this industry.

I have had actual experience with tens of thousands of cars, under every condition that motorists meet.

All I have learned in those 25 years is embodied in this car. And I know of no other engineer in the business who builds cars as I build this.

My Precautions

What I mean is this:

The need for infinite care, for utter exactness, for big margins of safety is taught by experience only.

Countless things which theory approves are by use proved insufficient.

Splendid cars fall down on little points. The maker corrects them. Then something else shows unexpected shortcomings.

Perfection is reached only through endless improvements. It comes only with years of experience. Were I buying a car I would want it built by the oldest man in the business.

For Example

All the steel I use is analyzed, so I know its exact alloy.

The gears are tested in a crushing machine with 50 tons' capacity. Thus I know to exactness what each gear will stand. I used to test them, as others do, with a hammer.

I use Nickel Steel for the axles and driving shaft, and make them much larger than necessary. These parts can't be too strong.

I use Vanadium Steel for connections.

One after another I have cut out ball bearings, because they don't stand the test. I use roller bearings—Timken and Hyatt High Duty. There are only three ball bearings in this whole car, and two are in the fan.

I test my magneto under tremendous compression, and for ten hours at a time. My carburetor is doubly heated—with hot air and hot water. Half the trouble comes from low grade gasoline, and this double heating avoids them.

I insist on utter exactness, a thousand inspections, tests of every part. As a result, errors don't develop when the car gets on the road.

Costly Care

I give to the body the same care as the chassis, for men like impressive cars.

The body is finished in 17 coats. The upholstering is deep. It is made of genuine leather and filled with hair.

The lamps are enameled. Even the engine is nickel trimmed. I finish each car like a show car.

The wheels are large, the car is over-tired. The wheel base is long, the tonneau is roomy, there is plenty of room for the driver's feet.

All the petty economies, which are so common, are avoided in Reo the Fifth.

My Level Best

This car embodies the best I know. It is built, above all, to justify men's faith in my designing.

Not one detail has been stinted. Not one could be improved by me if the car was to sell for $2,000.

Reo the Fifth marks my limit. I will yield my place as the dean of designers to a man who can build a car better.

Center Control No Side Levers

In this car I bring out my new center control. All the gear shifting is done by moving this handle less than three inches in each of four directions.

There are no side levers, so the entrance in front is clear. Both brakes are operated by foot pedals, one of which also operates the clutch.

This fact permits of the left side drive. The driver may sit, as he should sit, close to the cars he passes—on the upside of the road. This was formerly possible in electric cars only.

The Little Price

The initial price on this car has been fixed at $1,055. But our contracts with dealers provide for instant advance.

This price, in the long run, I regard as impossible. It is based on maximum output, on minimum cost for materials.

We have a model factory, splendidly equipped. Our output is enormous. We have spent many years in cutting cost of production. And this year we save about 20 per cent by building only one chassis in this great plant.

We can undersell others, and always will. But the present price is too low under average conditions. I am sure it must be advanced, and those who delay must expect it.

This car will never be skimped, while I build it, to keep within an altruistic price.

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We have dealers in a thousand towns. When you write us for catalog we will tell you the nearest.

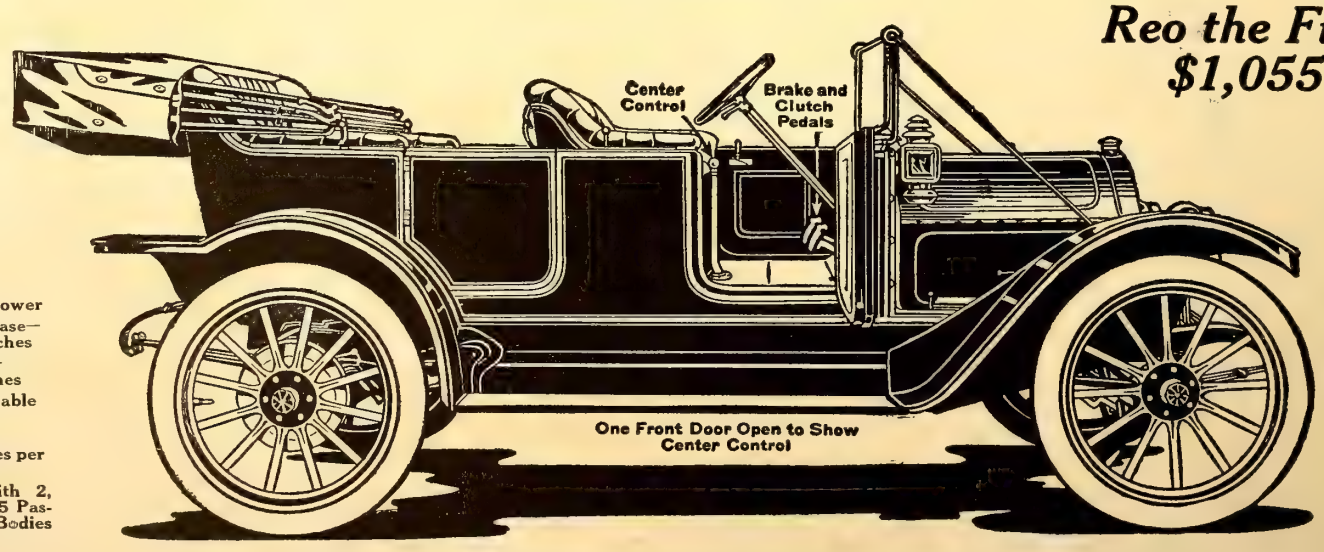
Write to-day for this book. It pictures the various up-to-date bodies, and shows all the interesting facts. The Roadster type sells for $1,000.

Never was a car in all my experience made so welcome as Reo the Fifth. Men miss a treat who fail to see this car Address

R. M. Owen & Co. General Sales Agents for Reo Motor Car Co., Lansing, Mich.

Canadian Factory, St. Catharines, Ontario

Reo the Fifth $1,055



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Made with 2, 4 and 5 Passenger Bodies

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FEEDING THE GROWING CHICKS

By E. I. FARRINGTON

WHEN chicks are hatched, at first they will peck at anything, from sand to sawdust. They will eat the ravelings from brooder coverings and sometimes pick at one another's feet until the blood comes. A week or more passes before a chick really reaches the age of discretion.

Sharp sand is what the chicks should eat first, and so the floor of the brooder is usually strewn with it. No food is required for thirty-six hours or more because the downy youngsters absorb the yolks of the eggs from which they are hatched just before they begin pecking their way to freedom. The chicks ought not to be removed from the brooder or from the under the sitting hen until they are thoroughly dry. They are wet, bedraggled little birds when they make their appearance on the stage of action.

Hard boiled eggs crumbled fine is the traditional first meal, and an excellent but by no means necessary one. Rolled oats or dry oatmeal, such as the cook uses, may be fed from the start. Some people mix breadcrumbs with an egg the first day and feed the breadcrumbs alone for several days after. The first feedings should not be too generous—just what the chicks will eat up clean four times a day. The rations, whatever they consist of, are best given on a shingle for two or three days; what is not eaten being removed. The chicks should come to each meal with a keen appetite, as expressed in voice and manner.

If the chicks are being raised in a brooder, or if they are confined with a hen in a run, there should be a litter of cut clover, alfalfa or hay on the floor, and as soon as a habit of regular feeding has been established, the grain should be thrown in that litter so that the chicks will be obliged to work a little in order to get it. An abundance of exercise is very essential. When the chicks are three or four days old they may be given one of the commercial chick feeds. Indeed, some people begin with these feeds. The commercial mixtures greatly simplify the feeding question for the amateur and are only a little more expensive than mixtures made from grains bought separately. They contain a variety of grain, cracked fine. When the commercial grain is not easily obtained, cracked corn, wheat and rolled oats may be given. Green food is needed after the first few days and may consist of bits of lettuce, cabbage chopped fine or clover sweepings from the barn floor.

After the first week, a dry mash is kept in hoppers before the chicks at all times on many poultry plants. This mash may be a commercial mixture, in which case it probably will contain alfalfa and beef scraps, or it may consist of some such mixture as the following: Three parts of bran, one part of corn meal, one part of middlings and one part of good beef scraps. A little meat seems essential, if the chicks are confined, and beef scraps are easily handled. When the chicks have a wide range they usually get enough bugs and

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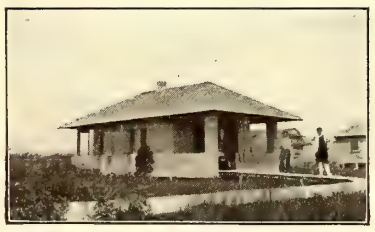

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DANYSZ VIRUS

contains the germs of a disease peculiar to rats and mice only and is absolutely **harmless to birds, human beings and other animals.** The rodents always die in the open, because of feverish condition. The disease is also contagious to them. Easily prepared and applied.

How much to use.—A small house, one tube. Ordinary dwelling, three tubes (if rats are numerous, not less than 6 tubes). One or two dozen for large stable with hay loft and yard or 5000 sq. ft. floor space in buildings. Price: One tube, 75c; 3 tubes, $1.75; 6 tubes, $3.25; one doz, $6.

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worms. Indeed, range-grown chicks will do very well if fed only a simple grain ration, but many breeders keep a hopper of bran where they can have free access to it. The mixed mash is better for brooder chicks and those closely confined.

After the birds are five weeks old, they need not be fed oftener than three times a day, and the commercial chick feed may be gradually given up, if motives of economy prevail, fine corn and wheat being relied upon, in addition to the mash. As the chicks grow older, oats and barley may be added and larger-sized grain used. It will be understood, of course, that this is the kind of feeding to be practiced when the birds are being grown in a normal way to produce layers the following Winter. A different plan is followed when broilers are being grown, for then they must be forced and fattened quickly.

The feeding of growing chicks may be made a very simple matter. The coddling often given them is not necessary. The main purpose should be to give them enough wholesome, palatable food to keep them growing steadily. There is no secret about the matter and one system often gives quite as satisfactory results as another. The old plan of giving wet mashes should, however, be avoided. There is no objection to giving a light mash once a day if it is made dry enough so that it will crumble in the hand when squeezed, especially if it can be mixed with milk. A soggy mash must never be given, in spite of what grandmother may say. Milk is excellent for chicks. Skim milk can hardly be used to better advantage and sour milk tends to produce rapid growth. Less meat is required if milk is fed.

Water in abundance is a necessity from the start, but it should be given in a fountain so arranged that the chicks cannot get into it and so wet their feathers. The sand will answer for grit at the beginning, but after that a box or hopper of fine grit should be always accessible and it is a good plan to have charcoal where the little birds can help themselves at any time. Fed in this way the work is not arduous. If the weather is very cold, it is well to warm the grain and the water, and when a brooder is used, the feeding place should be close to the shelter, so that the chicks will not be tempted to linger away from the heat until they get chilled—one of the things to be most carefully avoided.

Perhaps the very best plan is to buy a house large enough to shelter from fifteen to thirty adult birds and place the brooder in that, no matter whether it be of the fireless or the heated type. Then, when the chicks have matured and the cockerels have been disposed of, the pullets which are to constitute the next season's layers may be kept through the winter in the same house. That plan is an economical one, for heated brooders of the indoor kind are not as expensive as the outdoor type and no additional coops or houses for the chicks need to be secured. Some of the best indoor brooders are really only covers, are portable and can be set up in a short time anywhere, and when the chicks are large enough may be removed, leaving the house for the birds to grow up in. Of course, if a number of laying hens have been purchased at the same time by the beginner, it will be necessary to have two houses. A very good portable house which will accommodate from fifteen to twenty mature hens may be bought for fifteen dollars and some three dollars more will be needed to cover it with roofing paper. These portable houses have a number of distinctive

features and are particularly to be recommended to the man who rents his home and who, if he moved, would be obliged to leave a permanent poultry house behind him.

If, however, it is deemed best to construct a permanent house, the cost should not exceed one dollar for each hen which is to occupy it. That is putting the matter on a practical basis. As much more may be expended for appearances sake as may be desired, but a comfortable, convenient house if without frills, can be built for a dollar a hen. Thus equipped, and with a stock of well-bred birds, the amateur beginning his work in April may safely cherish high hopes of success.

TREATMENT OF EMPTY CONTAINERS

BOTTLE CLEANING

Wash the milk bottles before returning them to your dealer. This is required by law. The proper way to wash a milk bottle is to first rinse it thoroughly with cold water. When all the milky film has been removed from the inside, then wash carefuly with very hot water. All vessels used for holding milk or cream should be cleansed in the same manner.

USE OF BOTTLES

Do not use milk bottles for any other purpose than the holding of milk or cream. Such other use is prohibited by law.

BOTTLES AND NIPPLES

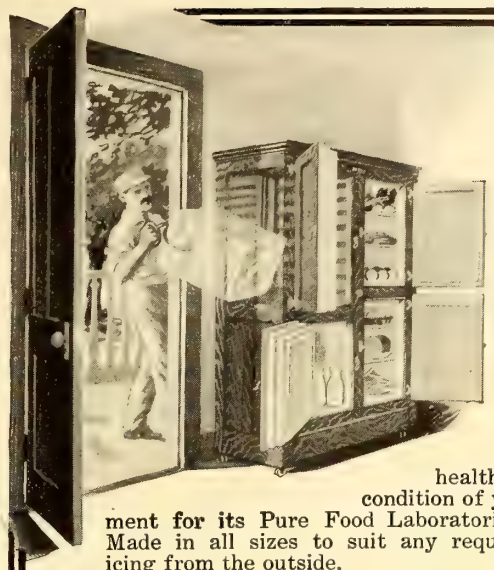
Rinse nursery bottles and nipples in cold water and wash in boiling water immediately after each feeding. Turn the nipples inside out and thoroughly cleanse. Rinse the bottles and nipples again in boiling water before using.

RETURN EMPTIES

Return empty bottles to the dealer daily after cleaning.

ANCIENT MANUSCRIPTS

ACCORDING to a paper read recently before the Royal Society of Arts, the earliest existing manuscripts, which formed the foundation of European manuscripts, are of Egyptian origin, and some of them are beautifully illuminated or ornamented with pictures. Until the second century B. C., papyrus remained the chief substance upon which the writings were made, but at that time a scarcity of supply occurred, and Eumenes II., King of Pergamum, introduced vellum, prepared from calfskin as a substitute. Vellum quickly superseded the brittle fiber of the Nile reed and became, as it still remains, the ideal material for writing and illuminating. In 330 A. D., the Emperor Constantine went to Byzantium, and the great early epoch of Christian art began shortly afterward. The Byzantine School was pictorial, the Celtic is ornamental. For about 400 years Irish scribes and illuminators produced magnificent manuscripts, a few of which still exist. English work from the eighth to the twelfth century shows Byzantine and Celtic feeling, combined with other influences. Anglo-Saxon work is noteworthy for the curious outlining and the peculiar attitudes of the figures. In the tenth century there was a great output of beautiful work; in the twelfth century the work generally tended to become smaller and more delicate. In the fourteenth century, the highest point of excellence in English illumination was reached. The fifteenth century saw the decline and practically the end of the art of English illumination, and later work of this kind done there was chiefly the work of foreign artists, mainly Dutch.



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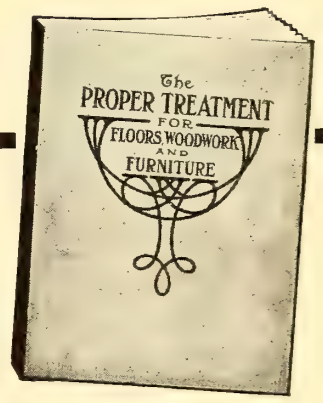

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No. 178 Brown Flemish
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BY introducing a tiled partition, as shown in the illustration, a built-in bath can be installed in conjunction with the needle and shower bath. This arrangement gives a full recessed bath, tiled in at the base, back and both ends.

The needle and shower bath is distinctive. Instead of the usual curtain, it is provided with a plate-glass door, adding greatly to its attractiveness and convenience. The large receptor, of Imperial (Solid) Porcelain, gives the bather the ample room required for a vigorous shower bath. The tiled walls and glass door are water tight.

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TELEPHONE, 1822 WORTH

ADVICE TO COUNTRY HOME-MAKER

WHAT can one best do to get food, and in general terms his living, very speedily after going to the country to live? Or put the question this way: How can I reduce my expenses by going into the country, and very rapidly increase my income from the land itself? The proposition is sound that a country place should pay its own way, but it cannot do it without two things; first of these is tact and industry on the part of the owner, and the second point is patience and wisdom in planting.

If I were just moving into the country I would first of all plant strawberries, raspberries and blackberries. These three will give fruit almost at once. Strawberries planted in August will crop the next May; raspberries planted one year in April or May will bear the next year in July; blackberries planted at the same time will bear the next year in August. So far as table food is concerned, we have no choice between these berries; but if the object is sale, then here is a choice. The red raspberry will be most available, simply because it will have the market most certainly. Strawberries rarely prove profitable unless grown in large quantities. They can be shipped from other sections into your market, while the raspberry cannot be so shipped.

Of the larger fruits, plums and cherries. if you will set when three years old, trees will begin to bear the next year and increase their crops steadily for four or five years thereafter. Now let me give you a secret, for it is a secret with even good horticulturists, that if you will set your pear trees limbed out low you will begin to get a crop two years from planting. The same is to some extent true of apples, and these low-headed and round-headed trees are extremely available, not only for early crops, but because they do not take up as much space around your house or on the lawn. They can be used as ornamental trees just as well as for orchard trees.

Now come down into the swale below the barn, and we will see what we can do in the vegetable garden for very prompt results. You must not spend much of your time on experiments—just yet. There will be too much weeding to be done in beds of carrots, beets, onions, etc., and you had better confine your attention mainly to corn, beans, potatoes and peas, beds of things that have to be wet by hand. Then plant the beans and peas in succession from April down to June, but put all potatoes into the soil as soon as it is mellow in the Spring. The vegetables I have named will bear abundantly and give you at least half of your food for the first year.

Now get a few boards and build a hen-house and henyard, and buy about six hens. That will be all you can feed from your table waste; and that is enough to give you all the eggs you can use, and a few over. If you go into the hen business extensively wait until your crops begin to multiply, so that you can furnish their food without buying. I am talking, however, to those city folk who have just got started, or are about to start, on places of two or three acres up to five. You can get too many hens on your hands very easily, and they will cost you more than they are worth.

It is better to hire a horse for the first few days that you will need him the first year, until you have your alfalfa fields to feed him and your stables and barn built. But a cow you must have. The milk and the butter cover at least one-fourth of good country living. Her first qualification must

be gentleness, and whether she is Holstein or Jersey or Ayrshire is a comparatively secondary matter. Only this, in picking out the cow buy her for milk, and not for blood. I mean that you do not so much need a high-bred animal as a good milker. You will at least have the milk and the cream if you do not make butter—and perhaps that is the better plan at present. Country people never use cream enough. Good, fresh, thick cream with a bit of salt is better than any butter ever churned.

About a pig I am not so sure, for what will fatten the hog will come from what you could otherwise feed the hens. My choice is the hens.

I believe that a rabbit warren is a good investment for a small country home. The warren need not be more than eight or ten feet square, and the occupants will live on waste cabbage, clover and any waste garden truck—although much of this might go to the cow.

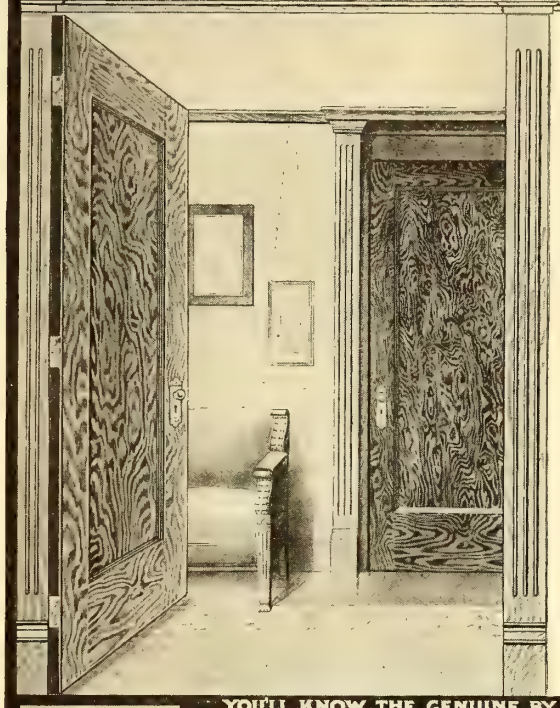
The hens will prefer dandelions and sorrel; the rabbits will accept clover, and the cow will take the slops. Rabbits breed very rapidly and fatten easily. I rather wonder that more people with small country places do not count on this rabbit supply for meat. A very small homestead could rely entirely upon the henhouse and a rabbit-warren. I am showing a way for reducing bills to the minimum, while you do not reduce your comforts at all.

With a small field of sweet corn one can get a lot of food and pleasure. Our Indian corn is not brought to its best by any means in American families. Indian meal is readily obtained from half an acre of field corn; you can do it just as well with what is left of your sweet corn after eating the boiling ears. There are excellent sorts that give you two or three ears to the stalk, and will supply your table through July, August and September. This will require three or four successive plantings from the last of April to the first of July. Late in September cut the corn, and save the best ears for some old-fashioned samp. This is made by drying the ears around the stove and grinding coarsely. Sift out the fine meal, and cook the coarse remainder all day. Indian meal cakes and Indian meal bread are sturdy substitutes for wheat, but if you have three or four acres give one half an acre to wheat, and not be obliged to buy flour.

Now we have the problem of sweetening, and no American family will be satisfied without plenty of sugar. You ought to have a few maple trees, and when you have, tap them carefully in the Spring, and learn how to make maple-sugar. Ten to twenty trees will be enough, if they stand out in the open, to give about fifty pounds of sugar annually. This can be stored in stone crocks, and be in use all Summer. If in addition you have, as you should have at once, four or five hives of bees, and the second year about ten or twelve hives, you will get all the honey that you can use, directly or indirectly, including a lot of sweetening for pies, and considerable vinegar from the waste. Then you will have at least fifty pounds the first year for sale, and from a dozen hives you will sell at least five hundred pounds a year, without stinting the home supply.

With meal, honey, eggs, cream, Indian-bread and berries you have a home-made dinner and a home-made supper, except, possibly, the wheaten bread—which, possibly, one may learn to leave out. With a broiled chicken once a week, and rabbit or bacon twice a week, you will have only your fish to obtain for a luxurious supply

Dept. B2
Morgan Co.
Oshkosh, Wisconsin
I intend to build remodel within the next ..... months. Kindly send me your full, free information for home builders. I am not obligating myself in any way by making this request.
Name .....
Town .....
Co. or St. No. .....
State .....
Fill in, tear off and mail today



YOUR good furniture shows to best advantage against a background of distinctive Morgan Woodwork. Homes equipped with Morgan Woodwork are already more than half furnished, as a glance at the illustration will show. And the best of it all is, a Morgan-furnished home is a permanently furnished home. The finished skill of master craftsmen and the most advanced mechanical science are practically applied to the building of

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GUARANTEED PERFECT HARDWOOD DOORS

Our de luxe book, "Door Beautiful," tells all about them in detail, and contains many beautiful interior and exterior views, besides a wealth of necessary expert information of inestimable value to prospective builders and remodelers. Do not be misled by claims of "just as good"— there is no other door nearly as good. Get a free copy of "Door Beautiful" and learn the reason why. Fill in the coupon in upper right-hand corner, mail it today and receive the book by return mail.

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Distributed by **Morgan Sash & Door Co., Chicago**
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These books contain a profusion of the latest ideas in
Georgian, Colonial, English, Bungalow, &c.
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One good new idea, while you are planning your home, is worth the price of many books.
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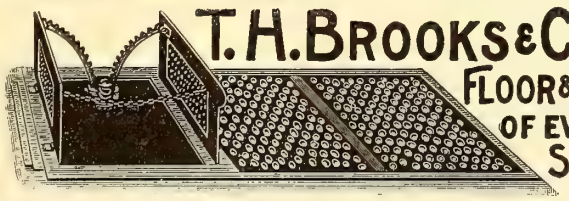

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FLOOR & SIDEWALK LIGHTS.
OF EVERY DESCRIPTION.
SEND FOR CATALOGUE.

Let Nature Shift The Scenes

The Gazing Globe affords a life-like panoramic picture of all the varied tints of earth and tree and sky—a weirdly beautiful ornament, interesting and effective in garden plot or sweep or sward.

The Garden Gazing Globe

is a crystal ball mounted—within easy reach of vision—on a terra-cotta pedestal of Pompeian design. It adds a touch of classic grandeur and medieval mystery to the simplest scheme of decoration.
Your family and friends are sure of ever-ready entertainment; they will never tire of the fascinating views in the Gazing Globe.

Diameter of Globe, 15 inches. Height of Pedestal, 36 inches

Write for new booklet with story of the Crystal Ball, prices, etc.

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WOODEN fences are now out of the question. Hedges require years to grow. Ordinary wire fences quickly rust to pieces. The only satisfactory and durable boundary marker is

Wright's Excelsior "RUST-PROOF" Fence

This fabric is treated to a hot bath of melted zinc, which completely encases it in a weather-resisting armor. Without a drop of paint it will stand year after year unaffected by rain or snow.

EXCELSIOR Trellis, Tree Guards and Edgings are alike "Rust-Proof," and the only devices of the kind that it really pays to use.

Your hardware dealer will order for you. Ask us to send an illustrated catalog.

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33 West Michigan Street, Chicago
256 Broadway, New York City
420 First Avenue, Pittsburgh
410 Commerce Street, Philadelphia
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You can have "Cream Quality" Bulbs Imported for Your Garden

At one time most of the *extra choice* Dutch Bulbs —Hyacinths, Tulips, Narcissi—were sold in England. *After the English trade was supplied* a few were sent over here.

For a number of years I have imported "Cream Quality" Bulbs direct from famous Holland growers—men who have made bulb growing a life work—but as this *extra choice* stock is limited in quantity only orders that are received *before* June 25th can be filled.

Hunt's "Cream Quality" Bulbs

are carefully selected and are the cream of the crop; they are large, sound and solid; and will produce extra good flowers. I test all the varieties I carry, and have *positive knowledge of their high quality*.

My Book "The Cream of Holland" tells what varieties of these extra "Cream Quality" bulbs I can import. Send for a copy at once and make your selection, for my order must be ready by June 25th.

I have another booklet "Daffodils de luxe" that describes the very latest varieties of these magnificent flowers; ask for a copy.

CHESTER JAY HUNT
Box 122 **Montclair, New Jersey**

These books free to owners of homes

You want the best plants, trees and shrubs—the best kind and the best specimens. The climate and soil of western North Carolina are such that on the various elevations may be grown almost every hardy plant or tree. At Biltmore Nursery those advantages are so utilized by skill and care as to produce a strain of plants of extraordinary vigor. To aid planters in making selections, Biltmore Nursery has published four books—one of which will be sent free to any home-owner who expects to purchase trees or plants.

"Hardy Garden Flowers"

The illustrations suggest many pleasing and varied forms of hardy garden planting—from the simple dooryard effect to the elaborate attainment. The descriptions are full and complete, yet free from technical terms.

"Flowering Trees and Shrubs"

Many of the best of the trees and shrubs producing showy blossoms are shown, from photographs, as grown in typical gardens, lawns and yards. The pictures and the text give numerous useful ideas for planting home grounds, large and small, to advantage.

"The Iris Catalog"

Unique in that it is, so far as we know, the only book of its kind devoted entirely to Irises. 16 large pages. handsomely illustrated throughout; seven pictures in the natural colors of the flowers. Accurate classifications and variety descriptions,

"Biltmore Nursery Catalog"

A guide to the cultivated plants of North America. Over two years in the making, and cost more than $1 a copy to complete. Contains 196 large pages and describes more than 300 perennials, 500 flowering shrubs, and distinct evergreens, 300 deciduous trees, and 200 odd vines and plants. Freely illustrated.

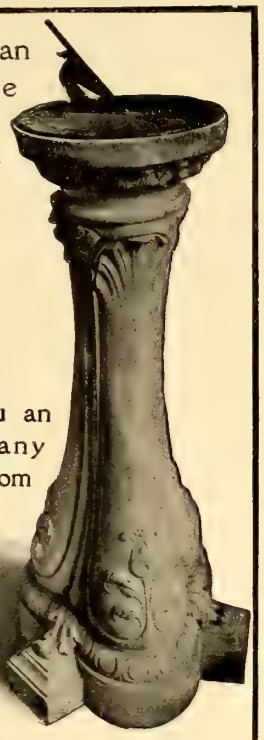
Ask for the Book You Need

If you have a garden of perennials, or want one, request "Hardy Garden Flowers" or "The Iris Catalog." Should you prefer the more showy things, tell us to send "Flowering Trees and Shrubs." In case you have a larger place and can plant extensively of many varieties, we shall be glad to send the "Biltmore Nursery Catalog." Edition of each limited—write to-day for the one you can use to best advantage.

BILTMORE NURSERY
Box 1254 **Biltmore, N. C.**

NOTHING can lend more charm to the garden than an attractive

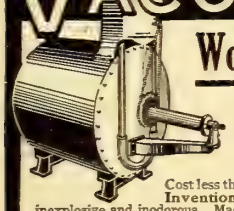
SUN DIAL



We can show you an assortment of many beautiful designs from which to select or submit designs carrying out original ideas. Write for our illustrated booklet "SUN DIALS for the GARDEN"

E. B. Meyrowitz
INCORPORATED
108 East 23rd Street, New York
Branches: Brooklyn, St. Paul, Minneapolis, London, Paris

VACOGEN
Wonderful New Light



Nothing else like it — made by the **Standard Vacuum Gas Machine.** Uses 97 per cent ordinary air; Cheapest, safest, most hygienic for lighting, heating and cooking; All conveniences of city gas in country homes; Cost less than 40 cents per 1000 cubic feet.—**Latest Invention** — Non-poisonous, non-asphyxiating, inexplosive and inodorous. Machine always ready—Much cheaper than acetylene and every element of danger removed—Gas to light with, Gas to cook with, Gas to heat water for bath, Gas for laundry purposes—no ashes, no dirt, no coal or wood to handle—Fuel gas for manufacturing purposes, and lighting of towns a specialty. Details and folder free—High class big proposition for live agents.

THE STANDARD GILLETT LIGHT CO., 21 W. Michigan St., Chicago, U. S. A.

A BEAUTIFUL HOME

IF you are one who would build this year, were you sure of the results—this ad is intended for you.

Any home may be beautiful—that is, correct in its lines—its proportions—its comfort and convenience, because taste is the only thing that determines what a home shall be. One doesn't buy a painting for the amount of paint on it but for the art, and so with a home.

DISTINCTIVE HOMES AND GARDENS

We have put some of our best thoughts into our books of homes—just the cream of our experience, illustrated with scores of homes we've built, describing every phase of the subject and telling how to avoid the usual pitfalls in building.

No. 1—35 designs, $1000 to $6000	$1.00
No. 2—35 designs, $6000 to $15000	$1.00
No. 3—Combining No. 1 and 2	$1.50

Stock plans priced in each book. Ask for our special offer on original plans.

-The Kauffman Company-

620 ROSE BUILDING CLEVELAND, OHIO

of meat. It is not improbable that you can also catch your own fish.

Indian-puddings and berry shortcakes and apple pies or pumpkin pies make home-made desserts good enough for anybody. Samp or grits, which are not very unlike boiled slowly all day, make most delicious food. It is worth the while to study the secret delights stored in vegetables, berries and corn. The field is full of investigation and invention.

If you are in the peach belt you have another of the all-around good things. One can almost live on uncooked peaches and grapes, but they can also be transformed into numerous luxuries. Add to a plate of peaches and a plate of grapes a slice of home-made bread, with peanut-butter—eaten slowly and thoroughly chewed. But eat your peaches also slowly.

In fact, anywhere in the country one person may live comfortably well in a well-ordered home for five or six cents a day. Then you may can and preserve a full supply of fruits and vegetables for the Winter months. In the course of five or six years there will be several other things, like apples, multiplying beyond the home supply. These will go to market and add to your purchasing money. There will also be a surplus of berries, if keeping on planting the shoots that come up from the stock. From a single acre of berries it will be easy to take in two or three hundred dollars each year, and there will be an increasing income from all the other directions I have indicated. However, do not be tempted to run your homesteads at first for market and second for home. This is a blunder made everywhere. There are tens of thousands of American country places which have the sale atmosphere dominant over the home atmosphere. Plant for home, think of home, and work for home. That is the only way to achieve true happiness in the home.

BANANA CLOTH

THERE is not a village in India that has not its clump of banana trees and not a village in which the fruit is not gathered and the fiber in the stalk wasted. It has been left to the Chinese to teach us how the tons of banana fiber thrown on the rubbish heap every year can be converted into banana cloth and sold at a most remunerative price. The process of manufacture is very simple and quite within the reach of the natives of India, particularly those—and there are thousands of them—who have had some little textile training in cotton or jute mills. One-year-old plants are selected and the stalk is unrolled and steamed over cauldrons of boiling water till soft. It is a simple matter then to remove the green outer skin, by passing strips of the stalk through an instrument provided with a couple of blunt blades, which act as scrapers. The fiber thus obtained is placed in cloth, and pounded in order to drive out excess moisture, and is next cleaned and twisted into yarn for weaving. Banana cloth is said to be eminently suitable for tropical wear and is very durable. At present the price would seem to be almost prohibitive, as a roll of banana cloth, five yards long and one yard wide sells for about $5.70. As the enterprise is a brand new one, high prices are to be expected; but they are sure to right themselves as the demand for this kind of cloth grows, and the supply endeavors to keep pace with it.

CREX
Grass Furniture

Unique designs, Beautiful Finish and Durable Construction make

CREX GRASS FURNITURE

The Leader in The Wicker Line,

Leading Dealers Everywhere

New Booklet No. 237, upon request.

PRAIRIE GRASS FURNITURE CO.
Sole Manufacturers
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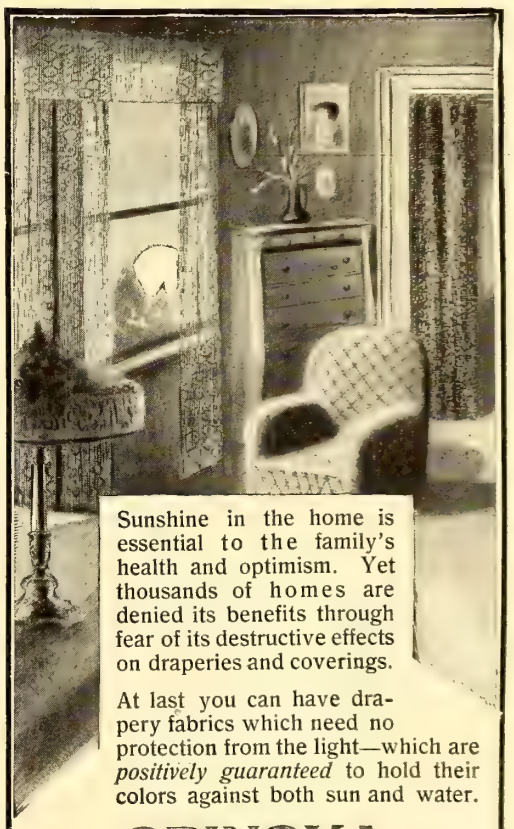


Sunshine in the home is essential to the family's health and optimism. Yet thousands of homes are denied its benefits through fear of its destructive effects on draperies and coverings.

At last you can have drapery fabrics which need no protection from the light—which are *positively guaranteed* to hold their colors against both sun and water.

ORINOKA
GUARANTEED
SUNFAST
Fabrics

for draperies and coverings

are dyed by an exclusive process which was discovered after years of experimenting and which is the *only* successful method for insuring fast colors, even in the most delicate decorative shades.

Do not confuse these fabrics with the many merely so-called "sunfast" materials which are offered. Every bolt of the genuine Orinoka goods bears a tag which authorizes the merchant to refund the money for any piece that changes color. *Insist on seeing this tag.*

Orinoka Sunfast Fabrics afford all-satisfying choice of weaves, designs and colorings, including original and exclusive ideas which will strongly appeal to those who value individuality in housefurnishings. At the leading stores everywhere. Ask your dealer for our book, "Draping the Home."

THE ORINOKA MILLS
Philadelphia
New York Chicago San Francisco

Hicks Shrubs and Trees

ONE year a bare foundation—the next, this charming effect. At the front steps are Hicks Boxwood and Dwarf Japanese Cypress.

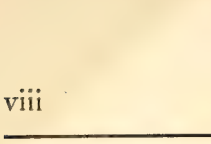
For carmine flowers in July are shrubs of Spirea Anthony Waterer. For summer green mass effects and autumn colorings are the Virginia Creeper and Japanese Barberry; the latter retaining coral berries undimmed till spring. A splendid bit of planting. Send for our new 1912 catalog showing how numerous planting and landscape problems have been quickly and effectively solved with Hicks choice shrubs and trees.

Rhododendrons make the richest possible foundation planting. All the year a mass of waxy green leaves, and in the spring always lovely with blooms. Hicks Rhododendrons ar all hardy acclimated plants.

Send for special Rhododendron circular.

Isaac Hicks & Son, Westbury, Long Island

Underground Garbage Receiver



THE STEPHENSON LYNN MASS

Underground Earth Closet

Convenient for Home, Farm or Camp

¶ Keep the Garbage Can underground, away from flies, cats, dogs, sun, rain, frost. No muss — No smell. Sanitary — Convenient.

¶ Underground Earth Closet with portable steel house. Protect your water supply on the farm or camp. Earth closet invaluable for contractors or employers of labor. Steel house also makes a most excellent bath house.

Sold direct
Write for catalogues

C. H. Stephenson
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FRESH AIR AND PROTECTION!

Ventilate your rooms, yet have your windows securely fastened with

The Ives Window Ventilating Lock

assuring you of fresh air and protection against intrusion. Safe and strong, inexpensive and easily applied. Ask your dealer for them

88-page Catalogue Hardware Specialties, Free.

THE H. B. IVES CO.
SOLE MANUFACTURERS ... NEW HAVEN, CONN.

The Scientific American Boy

By A. RUSSELL BOND. 320 pp., 340 Illus. $2 postpaid
A STORY OF OUTDOOR BOY LIFE

¶ Suggests a large number of diversions which, aside from affording entertainment, will stimulate in boys the creative spirit. Complete practical instructions are given for building the various articles, such as Scows, Canoes, Windmills, Water Wheels, Etc

Concrete Pottery and Garden Furniture

By Ralph C. Davison

THIS book describes in detail in a most practical manner the various methods of casting concrete for ornamental and useful purposes. It tells how to make all kinds of concrete vases, ornamental flower pots, concrete pedestals, concrete benches, concrete fences, etc. Full practical instructions are given for constructing and finishing the different kinds of molds, making the wire forms or frames, selecting and mixing the ingredients, covering the wire frames, modeling the cement mortar into form, and casting and finishing the various objects. Directions for inlaying, waterproofing and reinforcing cement are also included The information on color work alone is worth many times the cost of the book. With the information given in this book, any handy man or novice can make many useful and ornamental objects of cement for the adornment of the home or garden. The author has taken for granted that the reader knows nothing whatever about the subject and has explained each progressive step in the various operations throughout in detail.

16 mo. (5¼ x 7½ inches) 196 Pages. 140 Illustrations.

Price $1.50, postpaid

MUNN & COMPANY, Inc., *Publishers*
361 Broadway New York

INTERLINED PRINTING FOR THE BLIND

WHEN printing for the blind was first introduced a raised Roman letter was used; but years ago it was found that a system of points could be more easily distinguished than those letters, and now practically all printing for the blind is done in the point system. It has the advantage that stereotype plates can be made without having to set up type.

The plates are made on machines controlled by a keyboard. When the operator strikes certain combinations of these keys, the point characters representing the letters, are made directly on brass or zinc plates.

One of these brass plates is placed on a cylinder press and against it on the opposite cylinder is a rubber blanket. As the moist paper is fed between this rubber and plate, the impression is made upon the paper, and when it dries it is hardened so that it does not rub down under the touch of the finger in reading. By this process, however, only one side of the paper can be utilized.

For some time interlining or interpointing has been done by means of double plates by which both sides of the paper could be used, but this process was so very slow that it was largely impractical. The British and Foreign Blind Association in London has done interlining or interpointing by means of a platen press, but the Ziegler Publishing Company for the Blind of New York, publisher of the *Matilda Ziegler Magazine for the Blind,* has lately devised a plan by which the principle can be applied to the rotary press, and it is possible to do interlined printing at the rate of over 25,000 pages an hour.

For this purpose double brass plates are made. A double sheet of brass is placed in the plate-making machine and the lines are made in the regular way on one side of this double plate, but the points are made to go through both plates. After the lines of points are made on one side, the double plate is reversed and the lines of points are made on the other side between the lines that have been previously made on the other side of the plate, so that on each side of each plate there is a row of points alternating with a row of holes which make the points on the reverse side. Each point, therefore, on each plate has a corresponding hole into which it fits into the other plate. It will be readily seen that if a sheet of paper is put between these two plates and they are pressed together, an impression will be made on both sides of the paper.

Now, to apply this to the rotary press, the Ziegler Publishing Company has had the cylinders of its press so registered that if one of these double plates is placed on one cylinder and the other on the opposite cylinder, they will fit as the two cylinders revolve together, and each point on the one plate will strike directly into the corresponding hole on the other plate and *vice versa.* The moist paper is fed between these plates and the rubber is done away with. It is found that in this way a more perfect and uniform print can be secured than heretofore.

By this process 50 to 75 per cent. more matter is obtained on each sheet of paper, which means almost a revolution in printing for the blind, for not only is the paper expensive, but matter for the blind spreads out so that under the old process books were of necessity very bulky. The first issue of the magazine to contain the new printing was that of October last. Sixteen pages were interlined, and the readers were not only greatly delighted with getting more reading matter in their magazine, but they found that it was just as easy to read as before.

COINS THE MINT BUYS AND SELLS

THE Mint does not buy old coins or paper money, except certain rare Colonial coins in fine condition, desired for the Mint's cabinet. Mutilated or uncurrent United States gold and silver coin is purchased as bullion. The Mint has no pattern pieces for sale; and the Government pays no premium for the return of any of its coins or paper money.

New coins cannot be struck in this country in the absence of authorization by Congress. The Mint supplies United States coins only and not of any past date. The $50 goldpiece and the half-dollar and quarter-dollar pieces in gold were struck by private parties on the Pacific Coast during the '49 period, and not by the Federal Government.

The coinage of the following coins ceased in the years named: The half-cent, copper, in 1857; one-cent, nickel, 1864; half-dime and three-cent, silver, and two-cent, bronze, in 1873; twenty-cent, silver, 1878; trade dollars, 1883; one-dollar and three-dollar, gold, and three-cent, nickel, 1889. The Columbian half-dollar was coined in 1892, and the Isabella quarter in 1893. The Lafayette dollar was struck in 1899, the date on the coin (1900) being that of the unveiling of the memorial.

Certain markings, indicating the place of coinage, are to be seen on our coins. Those struck at the Philadelphia Mint have no mint mark, but those struck at all other mints are distinguished by a small letter on the reverse, near the bottom. These letters are: "C" for Charlotte, N. C., discontinued in 1861; "CC" for Carson City, Nev., discontinued in 1893; "D" for Dahlonega, Ga., discontinued in 1861; "O" for New Orleans, and "S" for San Francisco.

The coins of the United States now authorized by law are: In gold, double eagle, eagle, half-eagle, quarter-eagle; in silver, half-dollar, quarter-dollar and dime; minor, five-cent, nickel, and one-cent, bronze.

Proof sets of both gold and silver coins are to be had by purchase from the Mint. When business there is slack, medals may be struck from dies furnished by individuals, public institutions and incorporated societies, at a charge sufficient to cover the cost of the operation and the value of the metal.

FACTS ABOUT BREATHING

THE amount of air breathed in at one normal inhalation of an average male adult is 500 cubic centimeters, or 30.5 cubic inches; but when taking vigorous exercise, seven times as much.

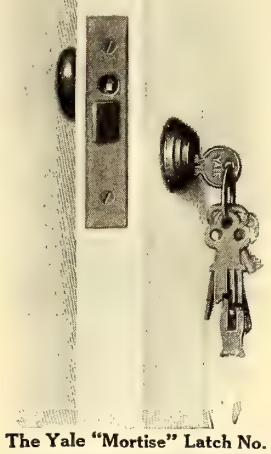
The total area of the lung surfaces is about 30 square meters or 323 square feet; that of the body, however, only 2 square meters or 21.53 square feet.

An adult breathes ordinarily in a minute about 18 times; when doing ordinary physical work, 25 times; when taking vigorous exercise, 60. In case of inflammation of the lungs the respiration takes place at the rate of about 40 breaths a minute.

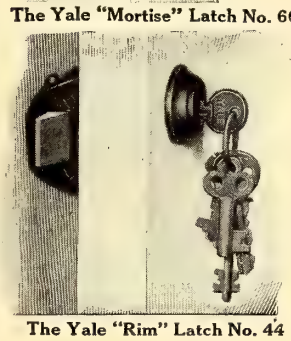
In the nasal passages the air is warmed more rapidly and thoroughly than when it passes into the lungs through the mouth. Air at a temperature of 6 deg. Cent.=42.8 deg. Fah. is raised to 32 deg. Cent.=89.6 deg. Fah. during the short time of an inhalation through the nose. The reason of the more thorough warming by nasal breathing is that the total surface of the nasal passages in the average adult is 100 square centimetres or 15.5 square inches; those of the mouth having an area of only 70 square centimetres or 10.85 square inches.

YALE

No Locks are Yale Locks unless made by Yale & Towne



The Yale "Mortise" Latch No. 66



The Yale "Rim" Latch No. 44

When you feel the need of additional security remember that

Yale Night-latches

give security with convenience. They are made in two forms—the "Rim" and the "Mortise" and are a comfort on

Front Entrance Doors — Grade Landing Doors
Outside Kitchen Doors — Store Room Doors
Outside Basement Doors — Closet Doors

and many other doors about the house, garage, etc. The mission of the "Rim" and "Mortise" is the same, but the "Mortise" makes the neater job.

Yale Padlocks
Did you ever hear anyone praise a Yale Padlock by saying it was as good as another?

Yale Hardware
New designs are constantly being added, samples of which can be seen in the salesrooms of leading hardware dealers.

Yale Door Checks
Simply shut the door—shut it softly, but shut it tight. Four styles to meet all conditions.

The Yale & Towne Mfg. Co.
Makers of YALE Products

Local Offices
CHICAGO: 74 East Randolph St.
SAN FRANCISCO: 706 Phelan Bldg.

General Offices: 9 Murray Street, New York
Exhibit Rooms: 251 Fifth Avenue, New York

Canadian Yale and Towne Limited, St. Catharines, Ont.

52

GALLOWAY

GARDEN TERRA COTTA

THE GALLOWAY Collection has been greatly increased *for* the season *of* 1912 Send for New Catalog showing new designs executed *in* strong, durable Terra-Cotta

GALLOWAY TERRA COTTA CO.
3222 WALNUT ST. PHILADELPHIA.

Cyclone Ornamental Fence will give the outside of your home the finished appearance that curtains give the inside. It takes away that look of something lacking.

Cyclone *Ornamental* **Fence**

is made of large wires, heavily galvanized. Heavy upright wires are firmly seated in the cables, forming an immovable joint. Easily put up on wooden or iron posts. Made in many attractive designs.

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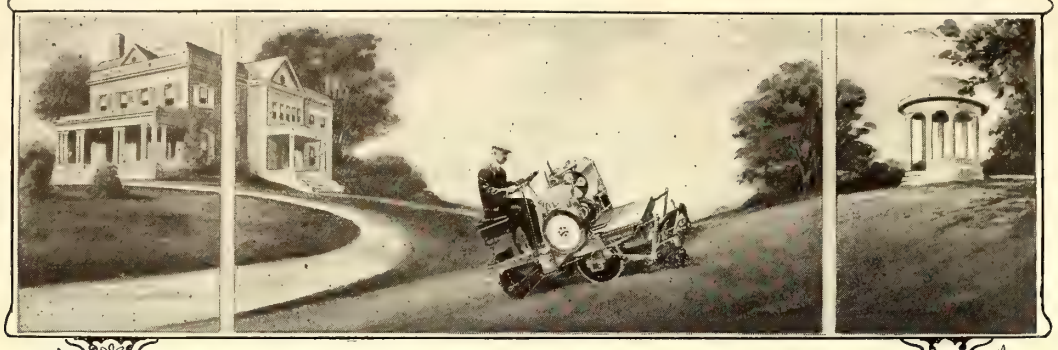

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THE ART OF WATERING

IT IS doubtful if watering the garden as it is ordinarily done is a benefit—at any rate the benefit is not great enough to pay for the labor lost in the operation.

There is no question of the value of watering plants when it is properly done. but the way water is commonly applied is so inefficient that it had better not be done at all.

The object of watering is, of course, to supply in abundance the moisture which plants need in order to grow luxuriantly.

The lawn sprinkler looks very pretty, but much water is lost through evaporation, and less falls on the ground than one supposes.

The lawn should be watered if it must be watered at all, by flooding it with water from the hose at night. Let the water run freely but without great force from the open of the hose. Move the hose every hour from 6 p. m. to bed time, and leave it for the night where it will cover the greatest area. If you cannot water the lawn this way you had better not water it at all. The need for water on a good lawn is very little anyway. It is only lawns on shallow or poor topsoil that need water, and such lawns should be improved.

Watering the garden is a difficult and important art and should be mastered by all amateurs. Watering should be done as irrigating is, every week or ten days, or every two weeks, with thorough cultivation following each watering. Sprinkling with a hose does the plants little good, and may do harm as it beats and compacts the soil so that little water is absorbed, and if it is sunny the next day the ground bakes and if not cultivated at once the condition of the garden is worse than before.

The rule should be, in a long drought a weekly soaking followed by thorough cultivation to conserve the moisture. Newly planted trees and shrubs need watering every ten days or two weeks. A hill of earth four or five inches high should be made around each tree, and the water should be allowed to fill this and soak away in the ground two or three times. The next day the earth can be levelled around the tree again and if it is wet, dry earth from nearby can be thrown over it as a mulch. Newly planted trees and shrubs should have a cultivated area around them for the first year at least.

Evergreens are sometimes helped by sprinkling the foliage just at nightfall. This should never be done when the sun is hot.

Mulching is sometimes better than watering, because the mulch once put on stays for the season and it cannot do any harm. If it is put on early in the year it keeps the ground moist and cool, and keeps the weeds from growing. It should be of manure, straw, leaves, grass clippings, pine needles or any waste material that will prevent evaporation.

When shrubs are planted in mass the whole area should be mulched. Individual small trees should have a mulch 6 feet in diameter spread about them.

CLEANING COPPERPLATE ENGRAVINGS

THE following recipe for cleaning copper-plate engravings is taken from a recent issue of *Neueste Erfind und Erfahr*: Make a solution of forty grammes ammonium carbonate in one pint of water and go over the engraving (both sides), using a sponge or soft brush; then rinse with clear water. Then wash with water to which has been added some vinegar and rinse out again; to finish, go over the whole

with water in which has been dissolved a small quantity of bleaching powder. Dry in the open, preferably in the sun. The engraving will look like new, the treatment to which it has been subjected leaving behind no traces whatever.

SQUASHES IN THE HOME GARDEN

By E. I. F.

THE first week in June is none too late to start squashes in the home garden. Indeed, late planting has an advantage, as in that way trouble with the black bug is largely avoided. The use of much fertilizer is needed in order to grow good squashes and the best plan is to broadcast manure and plow it into the soil. Then only a forkful of manure or a handful of commercial fertilizer will be required for each hill, but it should be dug into the soil. A shovelful of coal ashes in the hill will help to keep borers away. The seeds should be planted about one inch deep and it is wise to plant six or seven, thinning the plants to three or four in a hill. It is just as well to bunch the seeds, as no harm is done and the plants are more easily cared for than when scattered.

The young plants will probably appear within a week and must immediately be guarded against the various pests which seem to prefer squash vines to any other kind. The fondness which the different bugs and beetles have for squashes is so well known, indeed, that this vegetable is often planted with cucumbers and melons as a trap crop. There is no better way to fight the beetles than to dust the plants with a mixture made by using a teaspoonful of Paris green with two quarts of land plaster and two quarts of tobacco dust. Several applications must be made and it is especially necessary to use this poison just after a rain. Boxes for distributing the poison may be purchased, but it is a simple matter to make one from a baking powder or coffee can by punching holes in the bottom. The can should not be quite filled or the powder will not be shaken out easily, and the cover should be put on tightly so that none will be wasted. This duster may also be used to advantage when vegetables are attacked by the green fly, and is recommended by a prominent market gardener.

If the bug appears, it may be trapped by using shingles placed on the ground near the plants. The bugs will crawl under them and may be destroyed by crushing them or dropping them in kerosene. The shingles should be examined very early in the morning. The borer works in the stems and sometimes may be cut out, the stems then being buried in the earth, where they will take root.

The cultivation of the squash is not arduous as the vines grow very rapidly and shade the ground to such an extent that weeds cannot thrive. A wheel hoe can be used to advantage at first. If manure has not been broadcasted, it is a good plan to spread a little around each hill before the vines begin to run. Amateurs often make the mistake of planting squashes too closely. Nine feet is plenty close enough, and even then the plants will overlap in most cases, if they grow well. Squashes are frequently planted with early peas or beans, as they do not require the ground until those crops are off.

If the squashes are to be kept for Winter use, care must be exercised in gathering them, for they are easily bruised. They should be piled and left in the field for a few days before they are taken to the house. Hubbard, Delicious and Marblehead are good kinds to grow.

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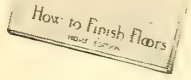

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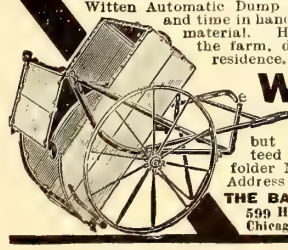

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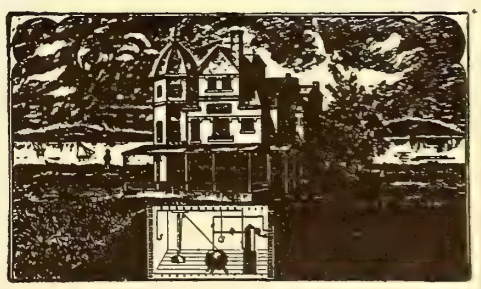

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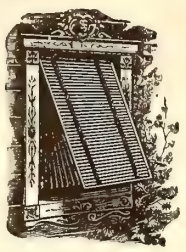
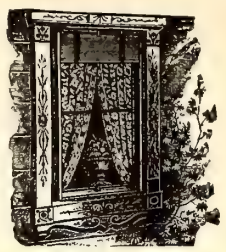
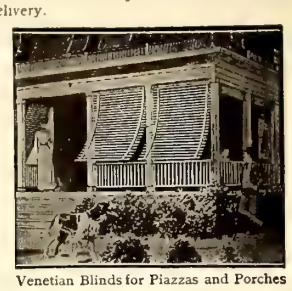

Outside View


Blind Pulled Up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CLEVER ANIMALS

A WRITER in "St. Nicholas" has the following to say of the cleverness of animals: "Cats seem to know what dogs they can frighten and drive off, as well as those from which they would do well to steer clear. I have often seen a pet cat of ours drive a big dog away from her dish on the back porch, causing him to set up such a howl that one might suppose a catamount were after him; and again I have seen a fox terrier send the same cat flying up a tree as fast as she could climb it, without any questioning as to whether it were best to go or not.

"Nearly everyone has noticed the remarkable knowing quality developed in all shepherd dogs. According to my own personal observation these dogs help to keep the herds in the road and drive them in the right direction; they know their master's sheep and cattle; they can separate one herd from another; they can keep each in its own special pasture; they can prevent their master's sheep from mingling with his neighbor's—especially when the flock comes to a break in the wall or fence or hedge, through which the sheep seem to have an almost irresistible tendency to pass—and on account of their great intelligence shepherd dogs are an almost indispensable aid to all those who have to manage sheep or cattle.

"The cattle dogs of Cuba are but little less intelligent in their management of these animals as they are landed from the livestock vessels in some of the ports of that country. Two dogs swim beside each steer, for each steer is thrown into the water to find its own way ashore, and these dogs guide it by the ears until the animal's feet touch bottom, when they immediately let go and return to the ship to assist another steer in reaching land in the same manner.

"Darwin describes a trick played on a monkey to show its intelligence. Lumps of sugar wrapped in paper were first given to him. Then for sugar a live wasp was substituted, but after meeting with an unpleasant experience from the wasp the monkey put the next package to his ear to learn if it might be safely opened. This action showed that the monkey had memory, and considerable wisdom and had discovered that a wasp buzzes when wrapped in paper.

"The elephant looks stupid enough, but his intelligence is developed to a marked degree. Dr. Romanes tells several interesting stories showing the almost human instinct of the animals. A man was one day feeding a tame elephant with potatoes which the elephant took from his hand. A small round potato fell on the ground just out of reach.

"After several unsuccessful attempts to get it, the animal blew so strong a blast of breath against it that it was dashed against a wall, from which it rebounded so far that he easily reached it.

"Dr. Romanes repeats the story of an elephant that was chained to a tree near a little oven in which his driver had just baked some rice cakes. When the driver went away, leaving his cakes to cool, the elephant unfastened the chain from his leg, uncovered the oven, opened it, ate the cakes, and covered the oven with earth and stones as he had found it. He then returned to his place, and wound the chain about his leg as it was before, although he could not fasten it. The driver, on his return, found the elephant with his back toward the oven, and looking innocent, but the cakes had completely disappeared."

THE EDITOR'S NOTEBOOK

THE MAY SMALL HOUSE NUMBER

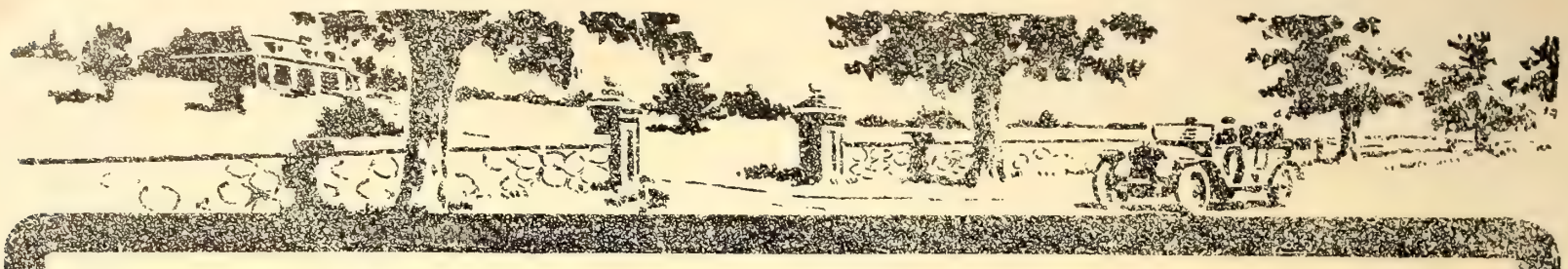
THE advent of the Annual Small House Number of AMERICAN HOMES AND GARDENS last year is now followed by the second appearance of an issue especially devoted to the small house. The present May number presents various features of importance to everyone. The Small House is a subject that is close to the heart of every American homemaker. This is the month that finds one thinking about small houses particularly, and that is why AMERICAN HOMES AND GARDENS annually makes its May issue a special number. The magazine's many readers will find that twelve full pages of text matter have been added to the present number to take care of the extra small house matter prepared for them, and they will find herein many small house exteriors and interiors described and illustrated and accompanied by floor plans of various stories. The enthusiastic letters that AMERICAN HOMES AND GARDENS continues to receive from its readers, subscribers and advertisers is a source of gratification and the Editor deeply appreciates the helpful interest which the magazine's many friends continue to hold in the articles that appear from month to month in these pages. The Editor is always glad to hear from its constantly increasing circle of subscribers, for AMERICAN HOMES AND GARDENS *knows what its readers will like because the editorial policy of the magazine keeps it closely in touch with them.* Therefore comment and suggestion is always welcome, bringing with it, as often it does, the encouragement and the helpfulness of suggestion.

JUNE NUMBER OF AMERICAN HOMES AND GARDENS

THE pages of the June number of AMERICAN HOMES AND GARDENS will contain a number of articles filled with the spirit of vacation time. Mary H. Northend's articles on "Boys' Camps" will be well worth reading. Summer camps for boys represent a feature of the culture of modern youth that is equally important, in proportion, to other phases of educational development. Another outdoor article is that which will describe "A Camp Experiment," the story of the building of a camp, illustrated from beautiful photographs and floor plans. "Running a Houseboat by Automobile Power" is the title of an entertaining article by Robert H. Moulton, and F. F. Rockwell, the well-known gardening authority, contributes an adequately illustrated article on summer work in the vegetable garden. This number of AMERICAN HOMES AND GARDENS will describe interesting houses, each one illustrated from exterior and interior photographs and by plans. There will be other features of great value to the homemaker, such as an article on "The Portable House," "Planting Around Rocks," "Moles and Lawns," and the exquisitely illustrated "Garden Arches" feature. The matter of the interior of the house, large or small, its decoration, furnishing, papering, painting, flooring, plumbing, lighting, heating, etc., comprises a field in which the articles that appear in AMERICAN HOMES AND GARDENS stand unsurpassed. Summer and Winter there is no abatement in the interest shown in its articles by the readers of this magazine, because month by month it prints the best gardening articles that will be of definite value to the home-builder and home-maker that can be procured. The ideal of the American home is not the pretentious estate that is merely a show-place requiring an army of servants for its upkeep. Instead, the home and the garden of the man of moderate means more nearly approaches the true conception of the American ideal. Therefore AMERICAN HOMES AND GARDENS is eagerly read by the housewife as well as by other members of the family by reason of the attention it gives to the many matters within her province. This June number will be one of the most attractive numbers that have appeared among the issues of the magazine.

INTERNATIONALISM: A NEW TREND

THE world seems to be upon the dawn of a future era of internationalism, of a time when, without sacrifice to the intensest national pride, or to true loyalty to one's own country, the peoples of the world will come to intermingle in thought, language and effort to a degree that has not as yet been attained throughout the ages. It is not alone the interest shown by one nation in another's arts, sciences, literature, politics or achievements that will bring about the greater universal brotherhood, nor will it be by political or revolutionary means. We shall, instead, arrive at closer relationship to our neighbor-nations (just as we, perhaps, arrive at a closer relationship to our neighbor-villager, our neighbor-townsman or our neighbor-citizen) by the development of a truer kindliness, a more real charity, a wider generosity, and a less selfish appreciation in all affairs between ourselves and others, whether or not we be individuals or populations. In this connection it is interesting to note that a number of earnest men, (led by an American, Theodore Stanton, a son of the late Elizabeth Cady Stanton), have planned to issue an international newspaper, a newspaper which shall contain only news of world-wide importance, and other matter within the field of the propaganda for internationalism. Of course by internationalism one does not mean the upsetting of the world's political divisions, its various modes of government, or anything of the sort, but by the term one is to understand that there is meant the kinship of the whole world and the understanding of the relationship of the people of one nation, their arts, sciences and industries as well, to those of another. This project will be watched with interest inasmuch as it would seem to be one means of assisting as well the movement towards International peace. We of this country should seek to do away with the sort of provincialism that fools itself in believing itself to be the true national spirit. The whole world is ever a school to the whole world. An attitude towards informing ourselves more generally on subjects not bounded by our localism is one which we can well afford, in common with the people of every land, to develop within ourselves. It is likewise with the matter of homemaking. There is much of value we can learn from other countries in the way of architecture, gardening, economics, and so on, which, if adopted by us or adapted to our own needs would greatly advance our progress.



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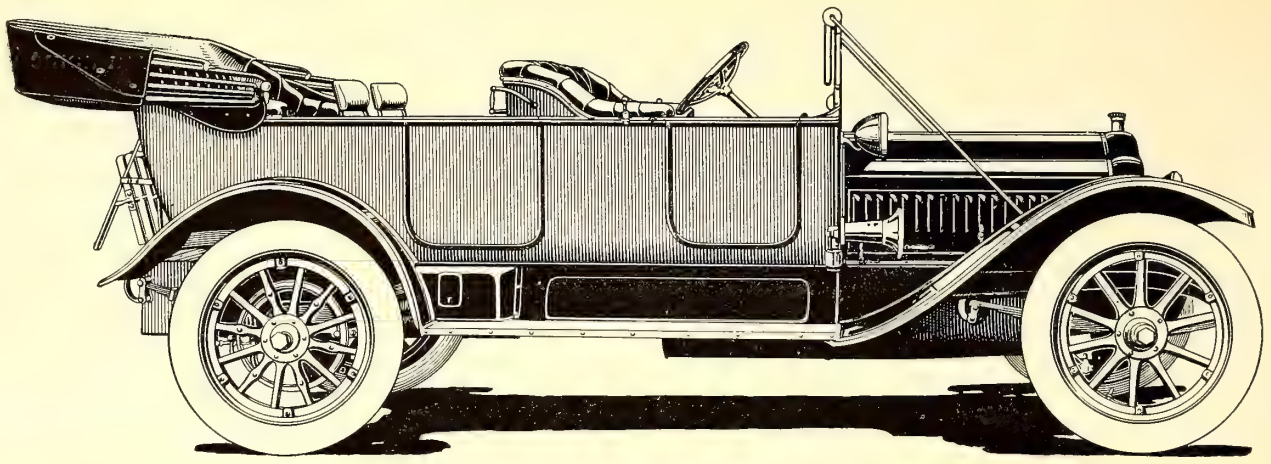

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AMERICAN HOMES AND GARDENS

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Feeding the Growing Chicks Book Notes The Editor's Notebook
Old Woodwork in Modern Homes

CHARLES ALLEN MUNN
President

MUNN & CO., Inc.
Publishers
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Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

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Photograph by T. C. Turner

The well-planned doorway is one of the most important architectural considerations of the small house as well as one of its most attractive features

AMERICAN HOMES AND GARDENS

Volume IX — May, 1912 — Number 5

The Small House

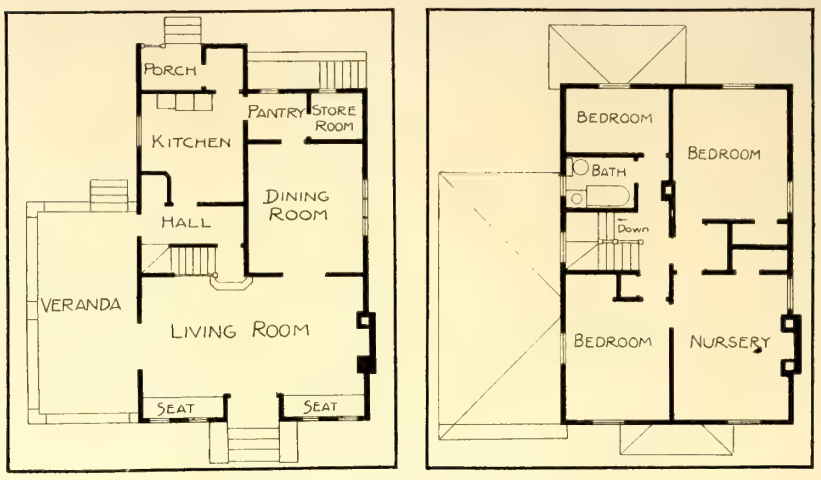
By Gardner Teall

Photographs by T. C. Turner

THERE is always about the small house something that endears it to the spirit of the traditions of our ideals of American home life, something that makes us turn to the thought of it, when we are occupied with the problems of home-making, in preference to the house of extensive proportions or of greater pretence, even though the requirements of our circumstances and position in the affairs of life may make it necessary for us ultimately to be governed by what, after all, may not be with us precisely a matter of choice. The small house need not, of course, be a tiny house, nor yet one of cramped quarters. Our Colonial ancestors were master-builders in the matter of producing small houses carrying with them a

The suburban home of Mrs. Mary F. H. Johnson, at Hackensack, New Jersey, an excellent example of the thoroughly attractive small house

sense of roominess, even of spaciousness. On the other hand those dark ages of domestic architecture prevailing in America from the year 1870 until a decade ago witnessed the building of many dwellings, enormous in external proportions but so poorly planned as to seem like a doll's playhouse when one had the misfortune to be forced to live within their walls. Happily the greater number of these dwellings were flimsily constructed of wood and have long since retired to their proper estate—junk yard and kindling box, leaving us to redeem our architectural faults of yesterday with the splendid accomplishments of our American architects of to-day along all lines, and especially in the planning and design of the small house.

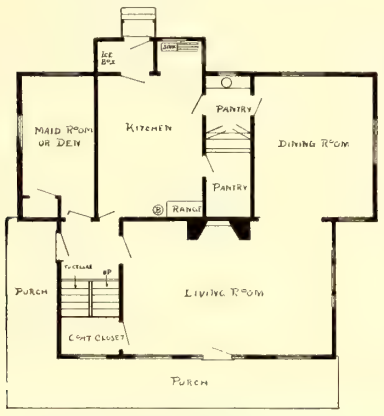


Floor plans of the Johnson house

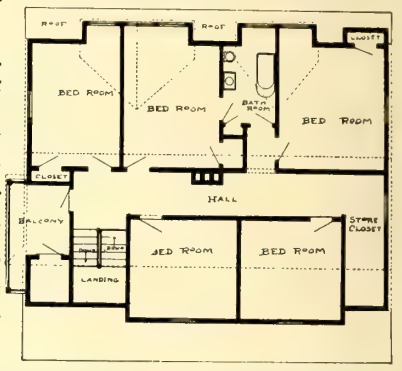
The notion, once prevalent, that if one had a small lot he should seek to cover it up with a large house, even if but two people were to occupy it, has long since given way to our realization that the house must be considered in the relationship to its site, and that if we must have a large house we must have a proper sized site for it. Of course there will, perhaps, remain a vast number of persons the world over whose circumstances will not permit them to attain their cherished desire, and yet the person who longs to possess and who seeks to own a small house of his own is bound to reach his heart's desire if he remains faithful to his enthusiasm for his dream-to-come-true.

We are wont to associate the thought of the small house with the starting out in life of the young husband and his bride, and it is a happy image for us to conjure up to the vision. Nevertheless, it is probable that the small house finds among its builders as many others. Wherefore it must lend itself to an endless number of requirements, must fit itself to many varied necessities.

The reader will find illustrated here a number of small houses together with diagrams of their floor plans. A careful study of these latter will indicate the requisites of the various families occupying them, and to the prospective home-builder such a study will serve to initiate him in the intricacies

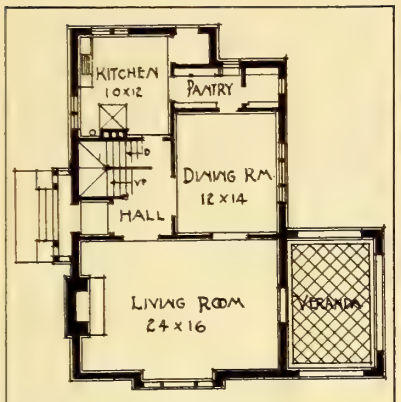


First floor plan, Gosman house



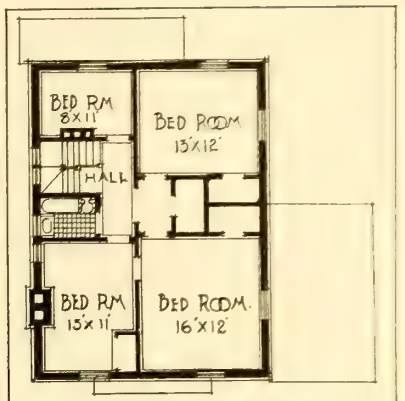
Second floor plan, Gosman house

The home of Mr. J. W. Gosman, at Caldwell Cedars, Caldwell, New Jersey, a small house of unusual merit, both in plan and in its design



FIRST FLOOR PLAN

Floor plans and view of the veranda of the Ward house



SECOND FLOOR PLAN

of choosing plans for the small house he himself would like to have.

The first of the group of small houses illustrating this article is the home of Mrs. Mary F. H. Johnson, at Hackensack, New Jersey, designed by Messrs. Mann and MacNeille, architects, New York, who were also the architects of the house of Mr. C. A. Ward, at Douglaston Park, Long Island, New York, illustrated on this page. Both these houses are conspicuous for their excellent proportions, which are based upon the square, though both houses are given living-rooms whose length is greater than their breadth, which is always a point to be sought in the planning of the rooms used by the family in common. There are other points of similarity in the two houses, and yet they are, each of them, individual in atmosphere and in no sense does one duplicate the other. Externally the Johnson house and the Ward house are similar in treatment though strikingly different in effect. In the Johnson house the veranda is reached from both the hallway and the living-room, while the veranda of the Ward house opens only from the living-room. A comparative study of these plans will be well worth while, for both have been evolved by architects who thoroughly understand the problem of the small house and its new requirements in the numerous differing parts.

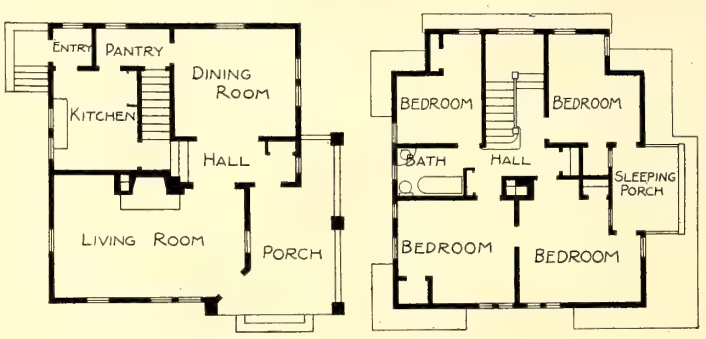
The delightful small gambrel-roof house at Caldwell Cedars, Caldwell, New Jersey, designed for Mr. J. W. Gosman by Mr. E. G. W. Dietrich, architect, New York,

The home of Mr. C. A. Ward, at Douglaston Park, Long Island, New York

Garden side of the Winans house

Entrance front of the Winans house

illustrated on page 148, has much to commend it. The charm of simplicity, yet comfortable homelikeness its lines suggest give to it the appearance of the thoroughly hospitable habitation that stands for the true conception of the American home. Originally the space now occupied by the two front bed-chambers was the balconied upper part of the living-room running up to the rafters. Later a floor was added and a partition was run through its center, the division producing two fair-sized chambers. The balcony extending above the porch can be used as a sleeping-porch in Summer, or for an upstairs sitting-room during the warm season. A small house of this sort is especially adapted to a suburban site. Both architect and owner have chosen its placing well, and the judicious planting of evergreens, trees and shrubs about the premises have added greatly to its attractiveness and to its home-like atmosphere.



Floor plans of the Winans house

The small stucco house illustrated on this page is well worth the attention of everyone planning to build a small house of this sort. This house, the home of Mrs. E. B. Winans, at Tuckahoe, New York, designed by John H. Phillips, architect, New York, is ad-

The home of Mrs. E. B. Winans, at Tuckahoe, New York, a very successful and attractive example of the small house of stucco

The beautifully-situated residence of Mr. Ralph J. Clark, at Oakley Manor, Mount Vernon, New York. This is a small house of distinction

mirably planned and constructed, thoroughly attractive and interesting, as well as being distinctly original in design though in no sense bizarre. While the entrance to the living-room is from the hallway, another entrance from this room is offered by the French windows which open upon the porch, thus enabling the maintenance of privacy when desired (as a single main entrance directly upon the living-

First and second floor plans of the Clark house

room from outside would not make possible), or of throwing the house open informally when these French doors are opened on occasion throughout the Summer season, during which time the porch becomes a delightful outdoor room. One of the special features of the Winans house is the clever planning which has given access to the sleeping-porch from two bed-chambers, and another feature is the external projection of the beams, giving to the porch corner of the house the appearance of the elevation of the projecting patterned beams of a pergola. When the sun is high these beam-ends cast patterns in shadow across the face of the stucco, giving relief to its surface just at that time of day when such relief is welcome to the vision.

The fourth small house here illustrated is that of Mr. Ralph J. Clark, at Oakley Manor, Mount Vernon, New York, designed by Herbert Lucas, architect, New York, who also designed the house of Mr. W. Morton Pickslay, in the same locality, shown on page 152. Mr. Clark's house is delightfully situated and is one of the most beautiful houses of its size and character in the east. There is something particularly appealing about its snug trimness, pleasing fenestration and the excellent device by which the architect

The living-room of the Clark house showing stairway

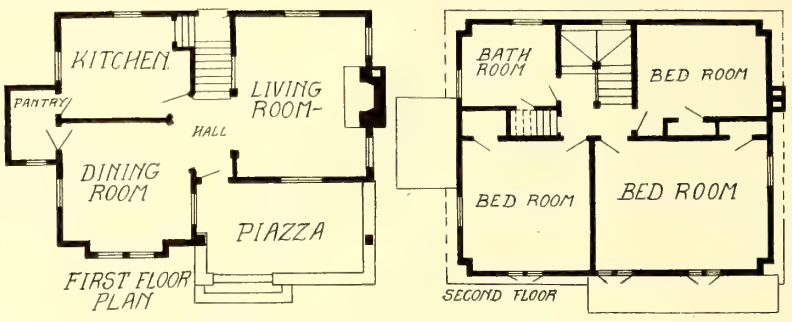
First floor plan

Floor plans and exterior of the stucco house owned by Mr. Pickslay, Oakley Manor, Mount Vernon, New York

Second floor plan

has succeeded in knitting it to its site—the trellis-screen that separates the lawn from the service yard. The enclosed veranda practically adds a room to the lower floor, converting that portion of it into a sun-parlor of goodly proportions. The isolation of the kitchen, which is conveniently reached, however, is admirably planned. The house owned by Mr. Pickslay is not less attractive, although the planting has not yet been so far advanced as to set it off as it will be with the approach of another season. This house is of the stucco type and the plaster walls of its exterior are relieved by well designed casement windows set with diamond panes, which, together with the lines of the roof, suggests the cottage architecture of England. The enclosed porch or sun-parlor runs quite across one end of the house, giving a room almost the size of the living-room from which it is reached. As in the Clark house, the architect has here solved the problem of placing the kitchen most successfully. There is a delightful suggestion of permanency about a small house of this sort, and it is doubtful if one could select a more picturesque type for the uncrowded suburban district given over to modern homes.

The two houses illustrated on this page were designed for Mr. F. W. Woodward and for Mr. J. O. Newell, of Glen Ridge, New Jersey, by Mrs. Frances G. Tynan, architect, Glen Ridge, New Jersey. Both are excellent examples of attractive small houses of the gambrel-roof type and give one a helpful idea of the different effects obtained in the varying detail of two houses upon the same general lines. The arrangement of the pantry, as shown in the first floor plan, is one of the most striking features of the house, for while it is easily accessible from either dining-room or kitchen, forming a passage from one to the other, it does not interfere with or break into the long wall space of the former room. With the passing of time hedge, vines and shrubbery would add still more to their homelike cosiness and will obtain for them seclusion.



Floor plans of the Woodward house

Home of Mr. J. O. Newell (to the left) and home of Mr. F. W. Woodward (to the right). Both of these houses are at Glen Ridge, New Jersey

Even in the very smallest houses of the cottage type, American architects are now producing many plans and elevations of distinction in design

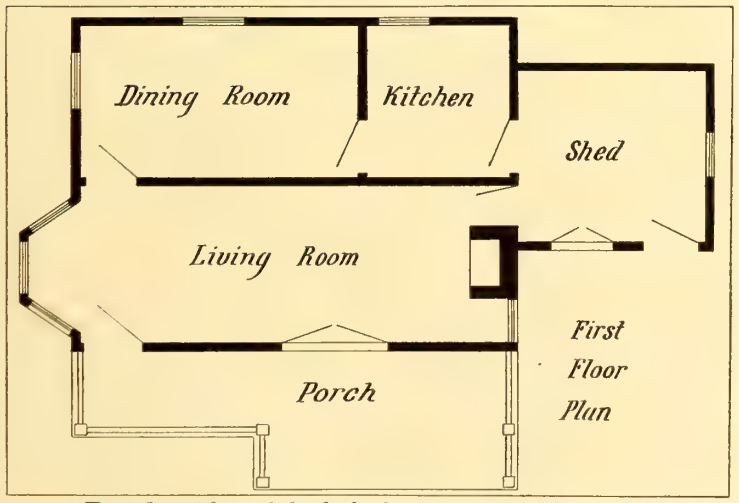
A Little Frame Cottage

By Mabel Tuke Priestman
Photographs by the Author

THE frame cottage shown upon this page is plastered outside, and has a shingled roof. It is a remarkably successful achievement for nine hundred and fifty dollars, its cost. The brown stained woodwork and fret ornament are distinctly individual decorative notes. The owner was able to save expense by doing a good deal of the detail work himself. The upper-porch was built as an outdoor sleeping-room and is an interesting feature of the cottage. The following is a summary of the cost of erection:

Lumber, including Windows and Heating	$370 00
Painting and Staining	50 00
Building Paper	10 00
Hardware	30 00
Miscellaneous	200 00
Mill work	45 00
Doors and Screens	35 00
Roofing	110 00
Plastering	100 00
Total	$950 00

There are sitting-rooms and kitchen and two bedrooms to this cottage. A clever and inexpensive form of steam heating has been installed therein.



First floor plan of the little frame cottage and interior

The walls are not plastered on the inside, but are stained a warm brown, the panels being filled with burlap on the upper walls. There is a quaint simplicity about this cottage that appeals to the economical builder; everything is in evidence; there is no attempt made here to hide the chimney which goes through the floor to the room above.

Perhaps the most striking feature of the plan of this little cottage is the manner in which the first floor has been divided. The partition runs lengthwise of the house in order to make possible a living-room across the whole front. One has only to imagine how another house, less artistically designed and less carefully carried out in the matter of its decorative detail, would appear even if constructed upon the same plan and built to the same proportions but lacking the artistic design that has been given this cottage by those who conceived its plan. Indeed, this tiny house spells the short step from ugliness to beauty.

The little circular Greek temple of the purest Doric architecture is reached by a flight of five steps from the edge of the flowing stream

A Chestnut Hill Garden

"Compton," a Philadelphia Suburban Estate, Full of Inspiration for the Garden-Maker

By Harold Donaldson Eberlein
Photographs by T. C. Turner

GARDENING is one of civilization's chiefest graces. Whatever civilization is or is not, whatever we as individuals may choose to reckon its essentials—and how many, if they think about it at all, will agree thereon?—few will deny that the making of gardens is an object worthy the care and devotion of the gentlest and most enlightened spirits. Lord Bacon, that astute genius of practical wisdom, sagely says, "God Almighty first planted a garden. And, indeed, it is the purest of human pleasures; it is the greatest refreshment to the spirits of man; without which buildings and palaces are but gross handiworks; and a man shall ever see, that when ages grow to civility and elegance, men come to build stately, sooner than to garden finely; as if gardening were the greater perfection."

Were Lord Bacon alive to-day the garden at Compton would doubtless elicit his sincere approval.

Compton lies on a northern spur of Chestnut Hill, Pennsylvania, overlooking the Whitemarsh Valley. About its wooded base winds the Wissahickon, just before it disappears among beetling, forest-crowned hills, rich in legendary and historic memories. In the near neighborhood of a city famed from the early days of Colonial history for its love of gardening and notable achievements in the realm of horticulture, Compton, though young in years, has proved a worthy follower in the honored traditions of garden making. Twenty-four years ago Compton was not. The hillside, now thick with verdure and bloom, watered with fountains and scattered pools, was in its first estate a bare, treeless slope, where Summer's sun beat with merciless rays and Winter's blasts swept in unchecked fury. Its transformation is a perennial witness to the constant loving care bestowed upon it, and years of well-directed enthusiasm, coupled with intelligent, constructive foresight, have borne fruit in its present charming aspect.

The Japanese garden

As you enter by the lodge, the whole expanse of the garden is spread out before you.

Nearby, at the foot of the gentle slope, is a pond, beyond which you mount through pleasance, grove and growing border to the house at the top of the hill. To the left is the park, a newer portion of the grounds,

covering a hillside facing the garden. In a little dale between the two hills, the brook flowing from the pond babbles on its way to join the Wissahickon's placid course through shaded banks in the broad meadow beyond. The driveway skirts the margin of the pond, and here you come upon one of Compton's choicest features—an object that has probably caught and held your eye from the moment you passed through the gate. A flight of five steps rises from the water's edge to a small circular Greek temple of purest Doric pattern, wrought in white marble, the roof upheld by six shapely pillars. Outlined against the dark green of the surrounding foliage, this bit of classic architecture stands forth in striking relief and impresses its character on all around. A stately pair of snow-white swans afloat on the pool adds an agreeable touch of animated life to the scene. Elsa and Lohengrin—such are their names—answer when called and are always eager for gobbets of bread when anyone comes near. In the center of the pond is an island covered with thick-grown shrubbery, so planted that either blossoms or foliage afford variety of color at all seasons. Along the edges grow shrubs and Iris with wealth of gorgeous bloom. Not far beyond the pond, almost hidden from view by trees and boscage, you discover a log cabin, past whose door the brook chatters noisily. A cobblestone chimney of generous proportions justifies the expectation of cheer and comfort within. Nor are you disappointed on entering. A great wide-throated fireplace stretches nearly across one end of the cabin, and there a full array of ancient cranes, hangers, pots and kettles, with no end of curious eighteenth century kitchen equipment besides, invites the most prosaic to essay a meal. For little picnicking luncheons or for tea brewings on chilly afternoons in Autumn, this tree-sheltered cabin is a truly ideal spot.

The tea-house brought from Tokio

The pleasantest way to ascend the hill to the house is through the arboretum. Leaving the pond and following a grass walk, you presently find yourself in the midst of plantations of Viburnums, Barberrys and Yew. Here Ivy trails over chains and stakes set out to mark the path; there Wistaria, trained into tree form, waves its purple clusters in the breeze. Not far beyond the pathway broadens out into a circle, and there a marble fountain of exquisite workmanship casts its hundred tiny jets sparkling in the sun. A few steps farther on a bower of hardy Orange trees encloses the alley. In Spring their great white-petaled blossoms star the leafage of glossy green; in Fall the golden fruit tempts eye and hand. On either side these trees have been planted, not in rows, but in the form of trefoils. Within the rounded trefoil ends stand tall, curiously wrought Chinese jars. The effect of this richly colored pottery against its sombre background can scarcely be described. Joy fol-

A more enchanting place at any time from May to October than this corner of the garden at Compton would be hard to imagine

There is a sense of intimate and restful seclusion about every nook and corner of this delectable garden commending its example

lows close on joy. One pace more brings us to the sundial on a terra-cotta pier of excellent design, guarded at the path-sides by prim, sentry-like box bushes. And now a flight of steps, flanked by massive balustrades wreathed in riotous tangled Bittersweet, leads up to a narrow terrace, above which a bubbling spring of water wells up and falls away into a rustic basin. The water for this spring is piped from a meadow more than a quarter of a mile distant and forced thither by a ram. The stream that rushes from this hilltop source supplies the fountains and pools all down the hillside, running from level to level by underground pipes, disappearing by a waste channel from one place only to be used afresh in another lower down, until it finally falls into the pond at the bottom. This plan of using water over and over again for a succession of pools and fountains at different levels in a garden is well worth a far wider practice than it has so far attained. The water arrangement, however, is only one of many instances in which Compton can suggest features that can be adapted and successfully carried out on places either large or small. The Japanese garden, the rock work, the Rose arbors, the Iris plantation, the formal garden, and a dozen things besides are replete with suggestions for garden makers. People are much like sheep; let one lead and the rest will follow. This is just as true in garden planning as in any other respect. The study, therefore, of a garden like Compton, where the way has been plainly blazed, ought to be enough to stir up a proper spirit of emulation.

The sundial, looking toward the terrace

To the right of the arboretum, as we go up the hill, is the Japanese garden, a spot of delightfully subtle allurement. The Japanese trees and shrubs in their own proper setting exhale a potent fascination, and then to linger by the rock-faced pools and watch the goldfish dart to and fro in their disport, to cross tiny bridges and climb miniature mountains, to come unexpectedly upon old stone lanterns or perchance an image from some ancient temple in far-away Nippon—all these things cause a thrill of unalloyed pleasure quite unlike any other sensation to which we Occidentals are accustomed. Concerning the origin of these Lilliputian hills and valleys, there is a tale that admirably exemplifies the principle of making the best of whatever is at hand and the Japanese persistence in turning everything to account. In the course of grading and tree-planting on various parts of the hillside, many loads of earth had been dumped at this spot. A Japanese workman desired permission to use these ugly hillocks as he saw fit, and under his patient skill and magic touch was evolved this minikin landscape. Such an object lesson in converting unsightliness into

beauty we Americans should take seriously to heart when we have so many wastes of criminal ugliness staring us in the face at every turn.

Adverting once more to the arboretum, it is safe to say that in few if any other gardens in America is there a broader or more complete general collection of trees. Some arboreta have finer and larger collections of the things in which they have specialized, but scarcely anywhere else is there as good or comprehensive a general gathering. As to the planting of annuals and perennials, they are sensibly grouped in great masses. Nothing could be more strikingly effective in the Fall than the wide borders, all of scarlet Sage, or more dazzlingly brilliant than the huge beds of Phlox in a setting of mid-Summer's full rich green. A group of ten or twenty stalks of Phlox does not attract special admiration. They are beautiful and fair to look upon, certainly, but there are scores of other things close by that equally challenge your attention. But plant your Phlox in a clump of five hundred or a thousand stalks—and it does not take so much space to hold that number—and then see the effect. The blaze of gorgeous color will fairly make you hold your breath. Massing flowers of one sort together is but copying one of Dame Nature's methods of managing her garden, and is sure to be successful, as all her methods are if we will only follow them intelligently. Take, for instance, a field of Buttercups or Goldenrod. How wonderful they are and how they give the scene life and interest! It is because of their massing in countless thousands. How effective would Buttercups or Goldenrod be if only a few scattered stalks grew here and there?

Rock work and the little cascade

Between the arboretum and the Japanese garden is a trellised arbor built out at one end on a singularly excellent pile of rockwork, in whose crevices grow plants suitable to the spot and down whose front pours a diminutive cascade. At the sides grow clumps of blooming perennials. Over the arbor clamber Rose vines, Clematis and Jessamine. A more enchanting place to sit and chat or muse or read, at any time from May to October, it would be hard to imagine. Hard by, the shade of a lofty Hickory invites us to sit a while on the bench built round its trunk and watch the arabesque of jets spout and play into the long pool fountain. From this same seat, when Autumn's touch has blazoned the leafage of Barberrys and Dogwood with copper hue or glowing crimson, when the gilded leaves above our heads, diapered against heaven's clearest blue at noonday, cast an amber-colored shade, when brush fires fill the air with golden haze, the sight over the garden slope beggars all human words. We gasp for sheer delight at being alive and wish for Janus heads and Argus eyes to drink in all at once and all the time the fullest draught of nature's iridescent beauty.

However hard to tear ourselves away from such a spot, other regions of the garden insistently claim our notice. Beyond the orchard, on a rising sweep that overlooks the lower portion of the grounds, the formal flower garden spreads its squares, fenced on two sides where the hill falls sharply away by a heavy stone balustrade on which peacocks perch and strut. At the corner where the balustrades meet, a circular stone-coped gazeebo affords a vantage point whence you may feast the eye, look which way you will. The paths that bound the garden and those that quarter it, intersecting at the center, are edged with close-clipped boxwood. Behind ramparts of lowlier plants tall Hollyhocks and Lupins wave, while Foxgloves, Phlox and crowding Larkspurs, with many another old-time favorite, all add their several shares

(*Continued on page 190*)

The entrance gate and driveway to Compton, the beautiful, wonderful private garden at Chestnut Hill, near Philadelphia

A well-planned and attractive stone and stucco house of this sort always dignifies the site by reason of its goodly proportions and excellent design

Small Houses of Stone and Stucco

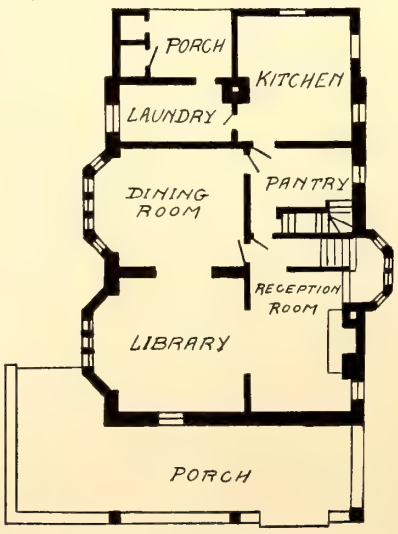
By Costen Fitz Gibbon
Photographs by T. C. Turner

PASTORIUS humorously set up above the door of his first humble dwelling in America a motto that provoked a smile from William Penn and elicited some pleasantry when the Lord Proprietor of the Province of Pennsylvania paid a visit to the worthy German colonist and schoolmaster just come from overseas, for domiciliation in this new hemisphere. This motto was:

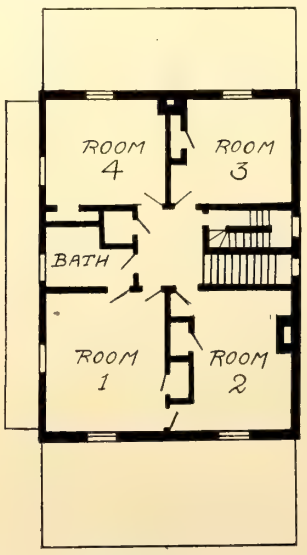
Parva domus, amica bonis,
Sed este procul profani.

The sentiment of combined contentment and hospitality contained therein may well point a moral for us in this day of sometimes extravagant bigness and flamboyant display.

Contentment, comfort, convenience, tastefulness of arrangement, all these are perfectly possible in a small house. A small house is not necessarily a jerry-built abomination utterly devoid of every quality a house ought to possess. On the contrary, a house may be both small and inexpensive and yet just as attractive and engaging as a large one. Everything depends on two factors—the thought bestowed by the architect and the personality of the master or mistress. We can all of us, without much effort, think of some small house that it is a delight to look upon and where we esteem it a privilege to call, and all because of the graciousness of the occupants in the first place and the charm of their setting in the second. In time past a certain odium attached to the small house and to some extent it still exists but it is rapidly disappearing as the small house becomes more and more pleasing through the application of intelligent architectural effort.



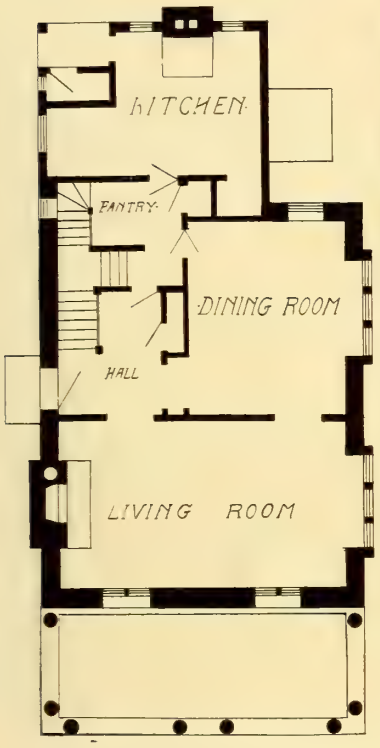
First floor plan



Second floor plan

The accompanying illustrations show certain small houses of a group at Cynwyd, Pa., most of them designed by Messrs. Savery, Scheetz & Savery, architects, Philadelphia, not one of which cost above $7,000 and several of them cost considerably less. Now a good many people who find it expedient or desirable to live in small houses are rather vitally interested in knowing all about small house plans and their price. Some live in small

houses from choice, some from necessity. At any rate, whatever be the cause that dictates a residence therein, architectural style and arrangement, comfort and cost are considerations of prime consequence to them. They wish to know how the house

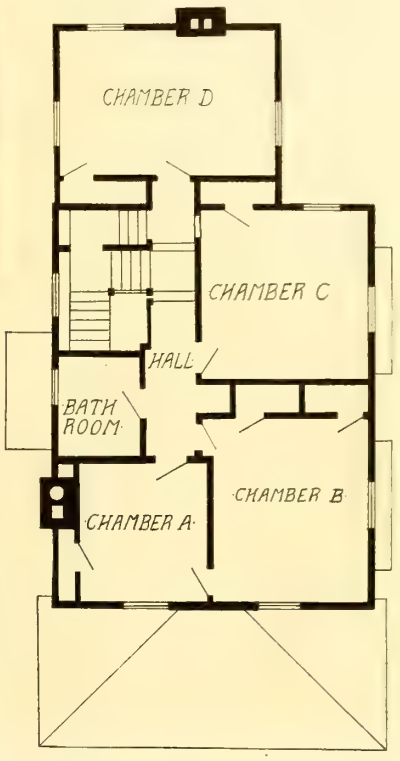


First floor plan

Dining-room of the $5,500 home which is shown on page 160

will look and they wish to know how much it is going to cost. They are anxious to have it as satisfactory as possible from the architectural point of view, they wish to know the utmost that can be done and well done for the money they have to spend and they are solicitous to get the full value for the money they do spend. Because choice prompts them or circumstances compel them to live simply, there is no shadow of reason why they should allow themselves to be set down in the midst of ugliness.

This position cannot be maintained with too much emphasis for, unfortunately enough, the dreary admission seems to have settled in the mind of the average intending builder of a small house that a good house, irrespective of size, must of necessity be an expensive house. This mischievous idea ought to be unsparingly uprooted. Too often the purchaser of a small lot, instead of going to a reputable architect, rushes off to some mere builder who puts up for him a house low-priced, perhaps, but in the end neither cheap,



Second floor plan

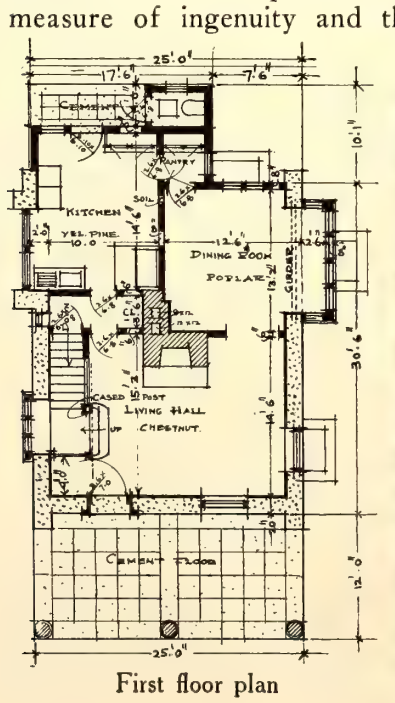
The total cost of this particularly attractive stone and stucco house when completed was kept well within $6,700

Here one sees a small house of stone and stucco, a paragon of neatness and attractiveness, costing but $5,500

convenient nor seemly. Here is only one evidence that popular taste among small house builders is more cryingly in need of architectural education than in any other quarter. It is little short of criminal to encourage a thing thoroughly ugly and offensive to the sight when it can as easily be made comely. For a very small additional expense for an architect's services most of the ordinary builder's eyesores that so offend us could have been made at least unobjectionable.

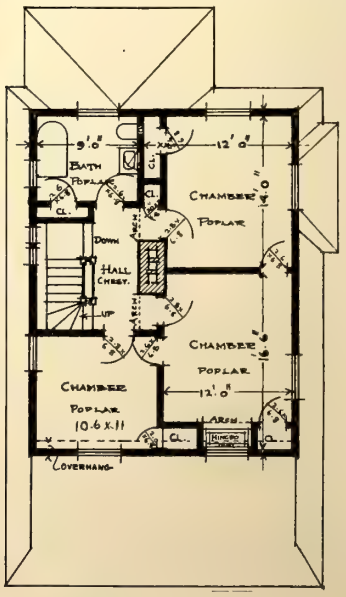
The array of houses of very moderate cost, set forth in the accompanying illustrations, ought in some measure to refute the notion that a house must needs be expensive because it is well planned. With the application of a measure of ingenuity and thought it is surprising how much can be accomplished.

The little square house for $5,500 is a paragon of convenience and compactness. There is not an inch of waste room in it. The front door opens directly into the living-hall whose chief feature of architectural adornment is a generous fireplace and a massive chimney jamb of uncut stone like that used in the outer walls. On the south and west, wide windows pour in a flood of light and on the north is a range of three diamond-paned casements, useful for air and light in Summer when the glare from the south window is cut off by the outside shutters. At one side of the fireplace a doorway opens into the dining-room, a cheerful place abundantly lighted by a long bow window, that takes in nearly the whole south side, and a smaller one on the east. It is always a good thing to have plenty of morning sunshine in the dining-room or the breakfast-room;



First floor plan

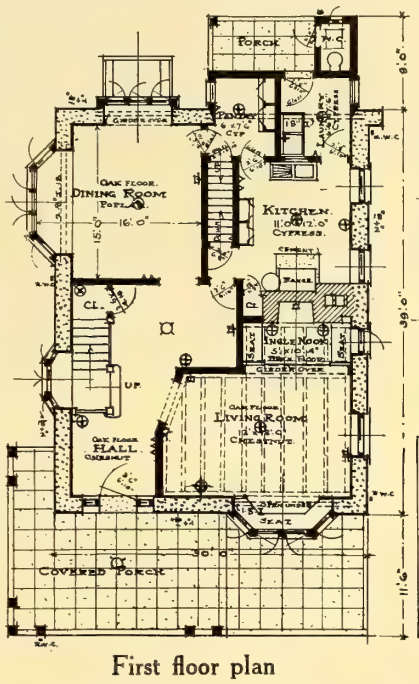
Living-hall of the house costing $5,500



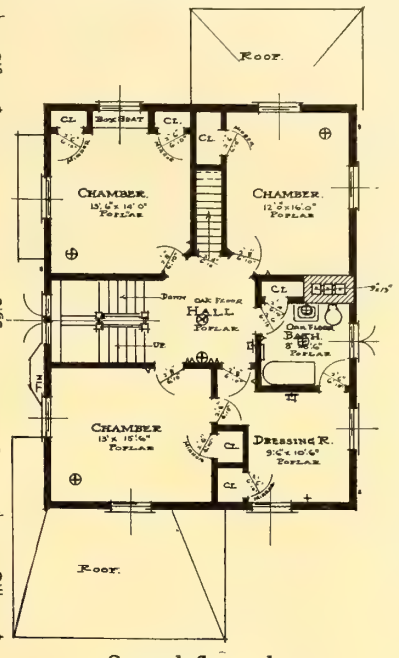
Second floor plan

some people habitually come downstairs with a matutinal spleen and it needs sunlight and a cheery smoking breakfast table to dispel the vapors. The dining-room opens into a pantry and the pantry into the kitchen.

On the second floor there are three good-sized bedrooms and a bath, while the attic contains two more bedrooms and also a good share of closet space. Considering the small size of the house the rooms are of unusually ample dimensions; the living-hall is twenty-two feet by fourteen and one half, the dining-room twelve and a half by thirteen and the kitchen fourteen and a half by ten. Better still, the rooms are all light and sunny; a glance at the good, whole-souled windows would assure one of that. Though the windows are so broad they do not dwarf the house, their wide-awake honesty ought to be a rebuke to anyone with a mind ready to stoop to architectural shams. Recently a very second-rate architect proudly held up for admiration and approval the elevations of a small house that he had tried to make look large by reducing the windows to ridiculous dimensions, "to fool them" as he remarked with a sly grimace. If he could be fetched to see the ingenuous expression of the windows in this little $5,500 house he might perhaps experience a change of heart. The rubble walls of this house are of native stone. A penthouse runs round the building at the level of the second floor and above that the walls are rough cast, giving altogether a very pleasing aspect to the exterior.



First floor plan



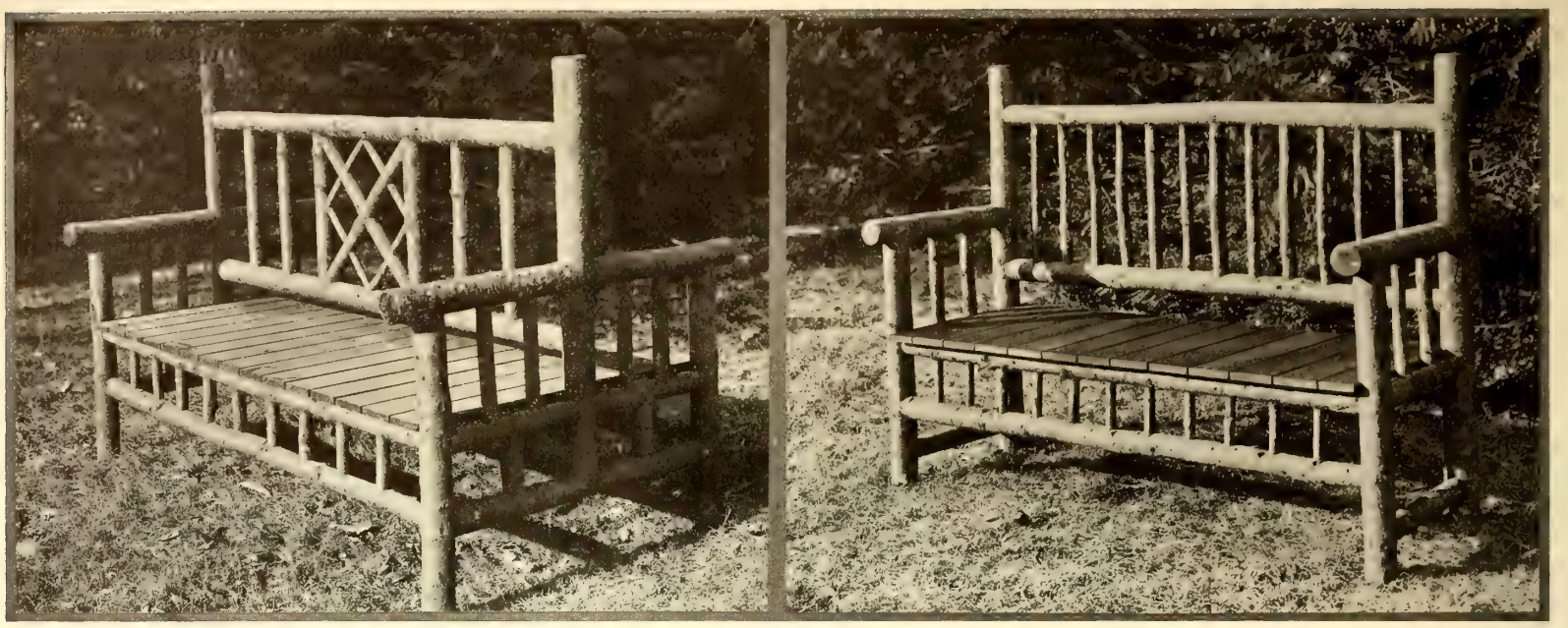
Second floor plan

Another $5,500 house provides on its first floor a hall opening by an archway into a living-room sixteen and a half feet by thirteen, back of this a dining-room of the same measurements, a pantry, a kitchen eleven feet by fourteen and a laundry. Upstairs there are three large bedrooms with a goodly allowance of closet space and a bathroom, while the attic has two bedrooms and a loft, floored but not ceiled, one of those delightful places where one can stow all sorts of odds and ends to be rummaged among on rainy days with the drops pattering a monotonous tune on the shingles overhead. This house also has rubble walls for the first floor and rough cast for all above that.

In both these houses of course everything has been kept down to the lowest possible figure but nothing has been skimped. Embellishments of any kind have been omitted but all necessities have been carefully considered. Honestly and staunchly built, judiciously planned and designed with an eye to architectural propriety, these dwellings have proved signally satisfactory

(*Continued on page 190*)

This stone and stucco house was erected at a complete cost not exceeding $7,000



The rustic garden seats of good design find their proper place in the informal rather than in the formal gardens

Garden Furniture of Good Design

By Mary H. Northend
Photographs by the author

THE everyday, varnished armchair or rocking-chair, when used as a garden seat, does not seem altogether appropriate, or suggestive of the fitness of things. At the best one feels that its stay is but temporary, and almost unconsciously, when the first cool days of Fall appear, feels a keen sympathy for the individual who will soon be tugging these chairs across the lawn and up the steps through the doors and passages, to their former resting place.

On the other hand, a few pieces of well chosen, well built rustic or painted furniture make the lawn attractive, inviting and homelike, and add much toward beautifying an otherwise unattractive garden.

The garden seat was the earliest form of garden furniture and served our ancestors as a convenient resting place, although in America the value of garden furnishings has never been as evident as in foreign countries. In fact, it is only in more recent years that ornaments have been employed in gardens to any great extent.

The French were appreciative of their decorative qualities, as well as the Greeks and Romans, as is evident by the manner in which their gardens were decorated with fountains, statues, urns, seats, etc., but of late years little thought has been given garden furnishing, and consequently much of their old-time charm has been lost. Up to within a few years this was particularly true of American gardens, but possibly owing to the adoption of the Italian garden decorations, they are to-day extensively employed.

Of these, perhaps, seats occupy the most important place. They not only afford a resting place for weary individuals, but frequently possess artistic qualities quite aside from their usefulness.

There are so many designs in this furniture that it is well to consider them in classes, such as those which require skilled workmen to manufacture, and must therefore be purchased ready made, and others of a more rustic nature, which may be constructed on the place with or without the assistance of a nearby carpenter.

A portable garden chair is one of the season's novelties

In the construction of one style of this rustic furniture, very irregular and crooked pieces are used, so that the result will present as many fantastic twists as possible. This style of seat is far from comfortable, and owing to the intricacies of its design, it is impossible to clean it when it becomes dirty and dusty, owing to weather conditions, which usually obtain shortly after its arrival in the garden. On the other hand, a simple design, in which all unnecessary lines are avoided, gives a result which is both pleasing and practical, and which will stand the most severe climatic conditions if carefully and solidly constructed.

The position the seat occupies in the garden is quite as important as the seat itself, as too often when placing them gardeners forget to provide any shelter from the sun and wind,

a point which should receive a good deal of consideration, especially in a climate such as ours. Seats which are placed in more exposed places of the grounds will be found to be little used.

If there are no sheltering trees or shady corners, a light framework of branches should be made, over which suitable climbers may be trained. Frequently the position of a seat is determined by the view which one may obtain while resting upon it, and while in some cases this plan works out admirably, still as a rule it should have a more obvious justification than mere view to warrant its situation in a definite position.

Rustic table and chairs for the informal garden

The rustic and attractive painted seats shown in the accompanying illustrations are among the best types of garden furniture. They are simple, attractive, and practical in design, and in finish harmonize with informal garden schemes, fitting in most artistically with the surrounding landscape. Particularly interesting is the double seat affording comfortable accommodations for four persons. This arrangement allows of two separate views without the trouble of moving the seat, and is especially practical where only one seat is to be used in the garden layout.

All these seats are built for comfort, and care is taken that the backs are of the right height, and that the seat is placed at a point distant from the ground to suit the average person. The value of this is evident in the single seat, which is not unlike a comfortable old-time armchair. Its finish allows of painting, affording opportunity for harmonious color combination, and it fits into any scheme, either simple or elaborate.

If more than one piece of furniture is to be used in a garden scheme, pretty rustic tables are attractive. Arranged with a chair or two they are an addition that any garden owner might be proud of, and they are convenient not only as a receptacle on which to serve afternoon tea, but also as a resting place for an attractive box of gay-colored flowers, which add a contrasting bit of tone.

Painted table and chairs for the informal garden

However used, each and every piece is wholly adaptable, and their simplicity of construction is such that they may readily be made by the amateur. All lines are plain and straight, and with the wood used in an unfinished state, the bark is the only finish required.

Not only seats and settees, benches, etc., but all manner of ornaments in the way of sundials, vases, pergolas, gates, and garden houses, may be made in rustic design, and to even a garden of formal layout they add a touch of quaintness which renders them distinct in the scheme.

Sundials, for instance, are found in a great many gardens of to-day. They may be simple or elaborate, old or new, large or small. There is a chance for the greatest individuality in choosing them. They may be made from an old tree stump, thus carrying out the rustic idea, and add a finishing touch to a rustic garden, or they may be made from the most elaborate marble column. The dial may be carved in the stone in this case, instead of being made of brass. Some of the bases for these dials, which are imported from Italy and Greece, are beautifully carved. They may be tables, fountains, vases, or anything which may be adapted to this purpose. Beautiful as well as practical bases are now made in this country, of a material which much resembles gray stone. Old models are easily copied in this material and give most satisfactory results. It is rather a delicate piece of work to set a dial accurately and it should be done by an expert. When it is ordered the state, county and town where it is to be used must be given, otherwise the dial will not be accurate for that particular latitude. It must then be set absolutely flat, and pointing directly to the North Star.

Garden seats of this sort are increasing in the popularity they deserve and are especially suited for use in formal gardens

The country home of Mr. William Adams, at Lawrence, Long Island, New York, built from his own plans

An Architect's Home in the Country

By Berwyn Converse

AN architect who has planned and built a great number of interesting country houses says that his feeling upon beginning such a work is somewhat that of a small boy who has acquired a set of building blocks of every conceivable size, color and shape, with which he may construct a building whose size shall be limited only by the number of his blocks. This feeling, in so far as it seems to offer possibilities almost without limit, may be felt by an architect who is building his own home. Here at last he may plan and execute without the certainty of having his plans upset by some captious client who has ideas of his own as to what the house should be. Here, too, is the opportunity for putting into practice the theories which every architect has in reserve, where the only limitation shall be that imposed by the size of his appropriation. All of these possibilities were presented when Mr. William Adams planned and built his own home in a most beautiful setting at Lawrence, Long Island.

The beauty of the shingles upon the walls of old buildings upon Cape Cod and elsewhere in eastern Massachusetts is due in a large degree to the gray coloring which is produced by the salt air with its constant dampening and drying. Mr. Adams' home is sufficiently near the south shore of Long Island to have felt this "weathering" effect and the result is that the house, while really but a few years old, has much the appearance of a very old building. The dwelling is oblong in shape with two shallow wings at right angles to the main structure. It is two stories in height, with a rather steep gambrel roof which, with its wide dormers, affords the space of a full third story and yet keeps the building sufficiently "low" to be in keeping in a rural locality where the ground is very nearly level and where a three-story building, unless it covered a large area, would be very much out of place. The house is built of cypress shingles cut out by hand and laid with wide courses to the weather. The walls and roof with the somewhat uneven surfaces thus presented have toned down or weathered to a beautiful silver gray which affords a pleasant contrast to the ivory-white of the exterior and the dark green blinds which are used at most of the windows.

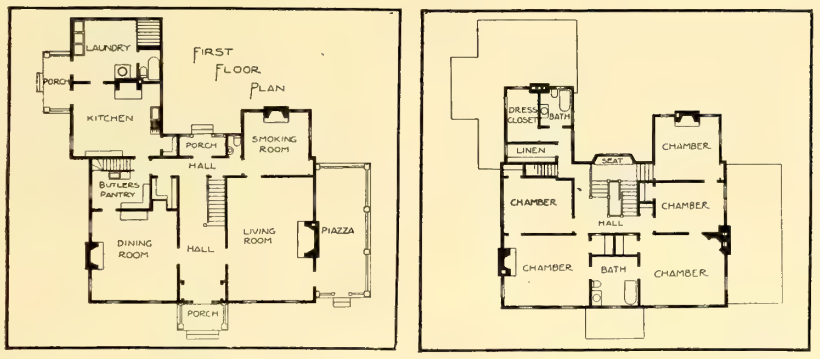
The beautiful entrance porch is made even more interesting by judicious planting

The homes at Lawrence are placed in grounds of some extent

and, as boundaries are not clearly defined, the general appearance is that of a park in which country homes are built. This provides a setting, individual and sufficiently spacious, for each home and Mr. Adams' house is placed amid lawns and trees where the planting has been so carefully done that it is already completely at home in its environment. Placed some distance from the road the house is approached by a broad carriage drive which turns in an oval before the main entrance. Tall bushes of California privet, near the house, are clipped into symmetrical form and at either side of the portico is a low, closely trimmed hedge which extends from the driveway to the steps. Over the entrance doorway is a fanlight—not of leaded glass but of small panes set in a framework of wood. At either side of the door are tall vertical lights of a design to agree with that of the fanlight above. This entrance to the house is protected by a portico of very simple design, a pediment supported by slender columns and pilasters with Doric capitals, all painted the ivory-white of the exterior woodwork. The door opens into what is practically an open vestibule, for at either side are placed small closets which are connected by a wide arch which leads into the broad hall. Just beyond, the hall is spanned by another arch where the stairway leads to the floors above. The woodwork is white with a stair-rail of mahogany. Old fashioned "scenery" paper covers the walls and upon the floor are Oriental rugs. Here is much old mahogany furniture and under the landing of the stairs glass doors or windows reaching to the floor give a glimpse of the garden beyond.

View of the hallway from the entrance

To the right of the hall is a very large living-room where the fireplace is between two windows opening upon the veranda. Two more windows overlook the approach to the house and the unusual length of the room is broken by a beam across the ceiling in much the same fashion as is seen in houses built one hundred years ago. Beyond the living-room is a small study or smoking-room which has a fireplace of its own and windows which overlook the lawn upon one side and which face the garden in another direction. Upon the left as one enters the house is the dining-room, which is separated by pantry and storeroom from kitchen, laundry and other domestic departments still farther on. These household arrangements are unusually complete, for in the dining-room, close by the sideboard, is a steel safe which is built into the house and concealed by a door which matches the rest of the woodwork. In such a safe may be kept the family silver, secure from any but the most skillful of burglar craftsmen. At one side of the kitchen is a veranda for the use of the maids, and the laundry, besides being supplied with the usual conveniences, is provided with a dryer which greatly facilitates the work here done and which also renders unnecessary a weekly exhibition of household linen.



First and second floor plans

Upon the landing of the stairs is an oriel window with a cushioned seat. The second floor is divided into five bedrooms, two bathrooms and a number of closets, besides a large linen closet and a dress closet, both of which have windows of their own. One of the bedrooms, placed where it could not open upon the upper hall, is reached by a short flight of steps from the landing of the stairs. Several of the bedrooms have open fireplaces and upon this floor, as elsewhere in the house, the "risers" which carry steam or hot water heat are concealed in closets. This can be appreciated by anyone who has seen interiors, otherwise successful, spoiled by these upright pipes. Upon the upper floor are more family bedrooms and quarters for the servants with the bathrooms required. These rooms are well lighted and ventilated by the steep gambrel roof and the deep dormer windows with which it is broken.

Perhaps the more interesting side of the house is that which overlooks the garden, enclosed by a tall and very thick hedge of privet. A broad, straight walk leads from the house to a garden entrance, where the hedge is trained and clipped into a heavy arch which forms a gateway cut from walls of solid green, which reminds one of the wonderful effects obtained in some English country-houses. Within the garden are walks, laid out and edged with grass in the old-fashioned manner, and flower beds where the old-time hardy flowers run riot. The spot is made as secluded and retired as a garden should be by the tall hedge and the flowering shrubbery by which it is walled in. The appearance of the house from the garden is of particular interest, for the two wings which extend at right angles from the main building are placed with symmetrical "balance" and the gable of each is emphasized by a chimney of attractive height.

The garden front of the house of Mr. William Adams

The quaintness of effect of this cottage of stucco is due largely to its broad roof surfaces which are entirely unbroken by dormer windows

A Cottage of Stucco

By Robert Leonard Ames

TASTEFUL simplicity of design and careful arrangement of floor plans are the two chief characteristics of this cottage built at Boonton, N. J., by Mr. William C. Lauritzen, a New York architect. The house is really much more spacious than its appearance would indicate, for in spite of its apparent small size it contains eight rooms and two bathrooms, abundant space for storage and a veranda area about equal to that of a room.

Upon a concrete foundation are walls of stucco applied upon metal lathing which is stretched upon the usual framework of wood. The walls are of a slightly roughened surface stained a pale gray and the trim is of wood, painted white, with heavy wooden shutters painted olive green. The roof is of shingles stained a dull, dark red. A broad veranda extends across the greater part of the front and the plan provides for a flooring of large "quarries" outlined with brick laid on edge. The four columns which support the roof are of the rough gray stucco, of which the house itself is built, and their simple Doric capitals are in complete accord with the direct and straightforward character of the building.

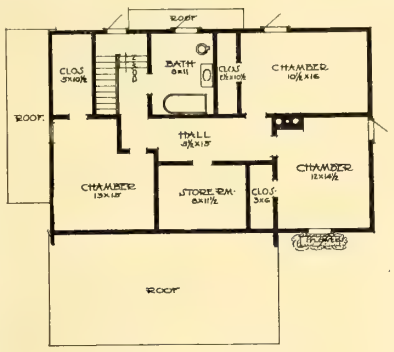
First floor plan

This house was planned for a family requiring an unusual number of bedrooms besides the usual living-rooms and service quarters and the plan gives to each department of the house the completeness it requires without sacrificing the privacy which is necessary. The main entrance opens into a small hall and then into a large living-room well lighted by three windows. At one side of the room is a wide fireplace lined and faced with brick and with a hearth of brick laid in "herring-bone" pattern. Built-in bookcases are fitted into the recesses thus formed. Beyond the living-room are dining-room, pantry and kitchen with its service entrance, which is hidden by a trellis upon which climbing roses are already being trained. The rest of the main floor is given up to two bedrooms and their bath, and these rooms are entered from their own hall, which separates them from the living-room and gives them a seclusion which is seldom given to first floor sleeping-rooms. Both bedrooms have ample closets, and a linen closet is provided in the hall, which also contains the stairway which leads to the upper floor by an ascent in a perfectly straight line.

The second story is divided into three bedrooms and a bathroom and there is a large attic for storage which could easily be made into more bedrooms, lighted and ventilated

by a row of low dormer windows which would in no way detract from the quaint effect of the broad, sweeping roof lines which are carried down to the eaves of the veranda. The rooms of the first floor are ten feet in height and the trim is of cypress stained a deep brown in living- and dining-rooms, simply oiled in the kitchen and painted white in bedrooms and bathrooms and the halls upon which these rooms open. The ceilings of the upper floor are sufficiently high for comfort and ventilation and are protected by "quilting" against extremes of either heat or cold. This material, which is now well known and widely used, is a sheeting of certain fibres which is placed between the plaster of the ceiling and the shingles of the roof and is impenetrable by either cold or by heat.

The locality in which this home has been made is one of those wild and rugged regions which abound in the hilly section of New Jersey not far from New York city. The house has been placed literally in the woods and built upon a plot which slopes so abruptly that space is given upon one side of the basement floor where several rooms might be placed, wholly above ground. This idea might be worked out and the space upon this lower floor made into a kitchen and a dining-room which might open upon a broad flagged terrace, particularly inviting by reason of the extensive view over a heavily wooded valley to be had from this part of the house, and which is merely suggested by the two pictures here shown. By removing kitchen and dining-room to this lower floor wonderful effects would become possible and the space upon the main floor which they now occupy might be utilized as a library with many windows overlooking the valley.



Second floor plan

A home built in the woods even more than one built anywhere else must be settled and fitted into its site, and this can hardly be done without the planting and the aid of growing things, for which time is required. A study of the illustrations will suggest the beauty of this little place where nature and time have co-operated to complete the quaintness of effect which has been so carefully begun and where much shrubbery has been massed about the foundations and vines trained upon walls and the columns of the veranda.

The level space before the house invites particular care in the laying out of a garden which might be planned with the simple Dutch formality suggested by the exterior of the house. The effect would be particularly interesting if the garden were enclosed by a clipped hedge with piers of stucco or brick to mark the entrance. The interest of a house depends to a large degree upon the care and skill with which the grounds and gardens are arranged and every opportunity is here offered for garden planning to enhance the beauty of an extremely interesting building.

This little home would be as suitable almost anywhere as in the New York suburb in which it is built. It depends for beauty and distinctive effect wholly upon its correctness of line and the character of such adornment as the flower box just above the front window of the living-room and the paneled wooden shutters with their half-moon "ventilators," after the manner of a century ago, and the old glass panes.

A New Jersey house built literally in the woods, with a wonderful view over a wooded valley

ATTRACTIVE

THERE ARE FEW ARCHITECTURAL FEATURES
CARRIED OUT THAN A FIRE

NGLENOOKS

A HOUSE MORE INTERESTING WHEN WELL
ACE WITH ITS INGLENOOK

ATTRACTIVE INGLENOOKS

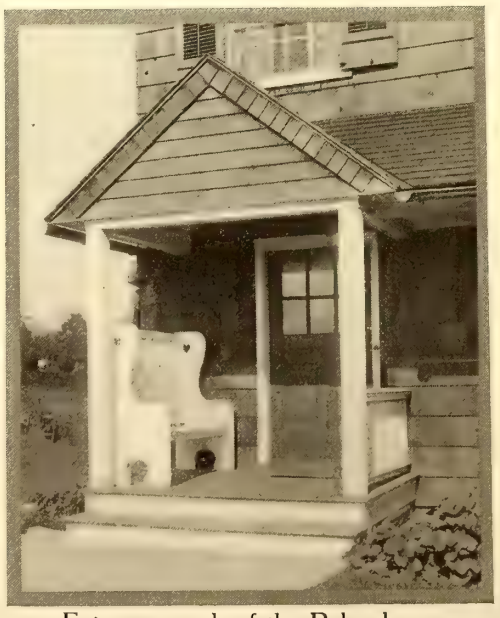
THERE ARE FEW ARCHITECTURAL FEATURES IN A HOUSE MORE INTERESTING WHEN WELL CARRIED OUT THAN A FIREPLACE WITH ITS INGLENOOK

The home of Mr. S. A. Pakes, at Hasbrouck Heights, New Jersey. A shingle house of interesting design

A Group of Suburban Homes

By Edward M. Carroll
Photographs by T. C. Turner

THE four very interesting small houses here shown were designed and were erected by Mr. O. J. Gette, architect, New York, in one of the most attractive of the New Jersey suburbs. They are all worthy of careful study by the builders of country and suburban homes in any part of the United States, for the exteriors are of several wholly different types and the interiors present several unusual plans of floor space. The homes are of different sizes and have been designed for a climate which includes extremes of heat as well as weather which is sometimes exceedingly cold. The grounds about the houses have been planned with unusual care and the result may be helpful to other home builders, for very often a country home may be made or marred by the arrangement of the setting in which the house is placed.



Entrance porch of the Pakes house

A building site some distance above the street level is frequently supposed to offer difficulties which cannot be overcome, and the impulse upon acquiring such a building spot is usually to make a contract for its reduction to the grade of the surrounding property. The home of Mr. S. A. Pakes, at Hasbrouck Heights, New Jersey, which is here shown, has been built upon ground which is far above the sidewalk, but so cleverly has the designing and planning been done that the height above the street grade has been worked out into a very pleasing and decorative feature. The site is somewhat spacious and across the front of the grounds a retaining wall has been built of cobblestones and the wall continued up the stone steps which approach the house. Such a wall is particularly interesting where the grounds above are planted with shrubbery and when in the small spaces between the stones are grown the vines and small shrubs which make the wall gardens of

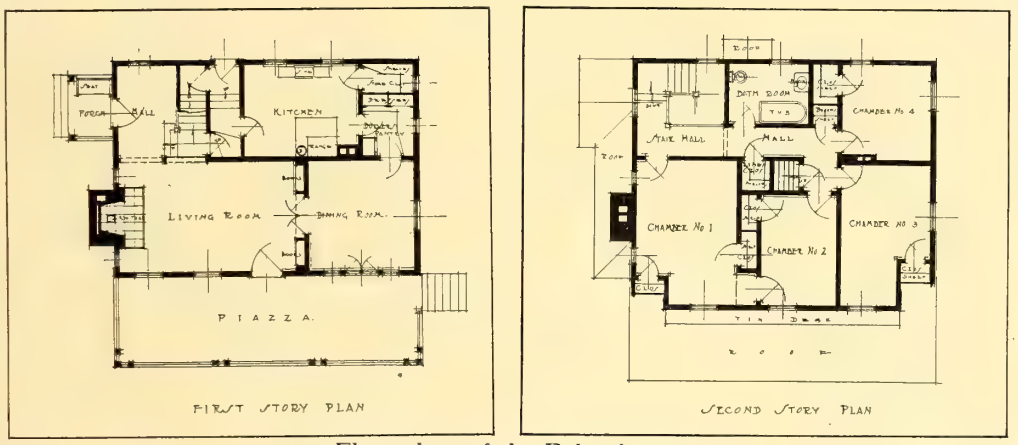
Garden front of the Pakes house

Entrance side of the Pakes house

England so fascinating. The house which has been built at the top of these picturesque stone steps is of shingles which have been toned to a deep tint by the action of the weather. The trimmings are of white and the expanse of roof surface is broken by one wide dormer carried across the entire front above a broad veranda.

At one corner of the house, away from the veranda, is the main entrance, which is sheltered by a "Germantown hood" extended at one side to surround a huge chimney built of the same cobblestones which form the wall about the grounds. The floor diagrams show exceedingly successful floor plans, for placing the entrance at one side has made it possible to devote the entire front to living- and dining-room. The stone chimney provides a very deep fireplace in the living-room and two windows and a door open upon the screened veranda, which overlooks the lawn and the brownstone wall.

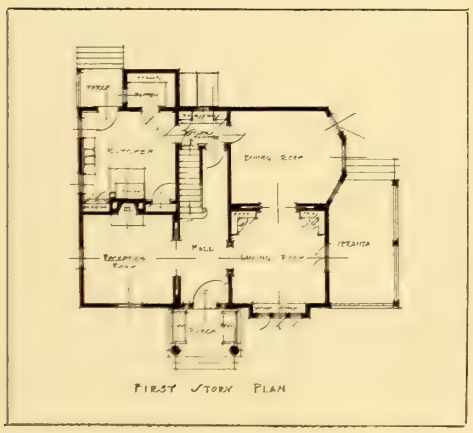
The upper floor of Mr. Pakes' house provides four bedrooms and a bathroom, all of which are a full story in height by reason of the dormer which breaks the roof lines of the front. There are three bedrooms facing the street and all are planned with closets, some of which are built in the many available spaces under the long sloping roof.



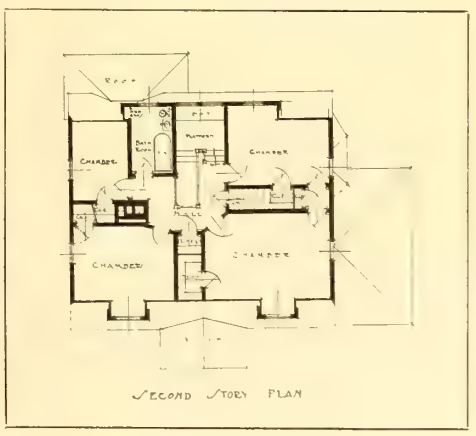
Floor plans of the Pakes house

Upon still another floor are more bedrooms and storage space lighted by semi-circular windows in the gable ends and another dormer set in the roof at the back of the building. This side of the house has been planned with great care and the kitchen entrance is covered with a hood supported by wooden brackets. A trellis upon which vines are being trained is placed at one end of the house and the drying yard is screened by lattice work which agrees with lattice panels about the foundations of the veranda.

A tall hedge of privet, closely clipped, would confer an air of distinction upon almost any country home and it increases the beauty of even so interesting a place as is shown in the second group of pictures, which illustrate an architect's home. The strong and dignified exterior of this house is obtained by the use of broad, plain wall and roof surfaces, the small window-panes and the white Doric columns at the entrance. Carefully planted shrubbery and smooth lawns surround the house and all are enclosed by a wall of green. Placed between white wooden benches is the principal doorway which opens into the entrance-hall. A reception-room is placed at the left and at the right are living- and dining-rooms. In the first of these rooms are built-in bookcases, casement windows



Floor plans and view of entrance porch of an architect's house at Hasbrouck Heights, New Jersey

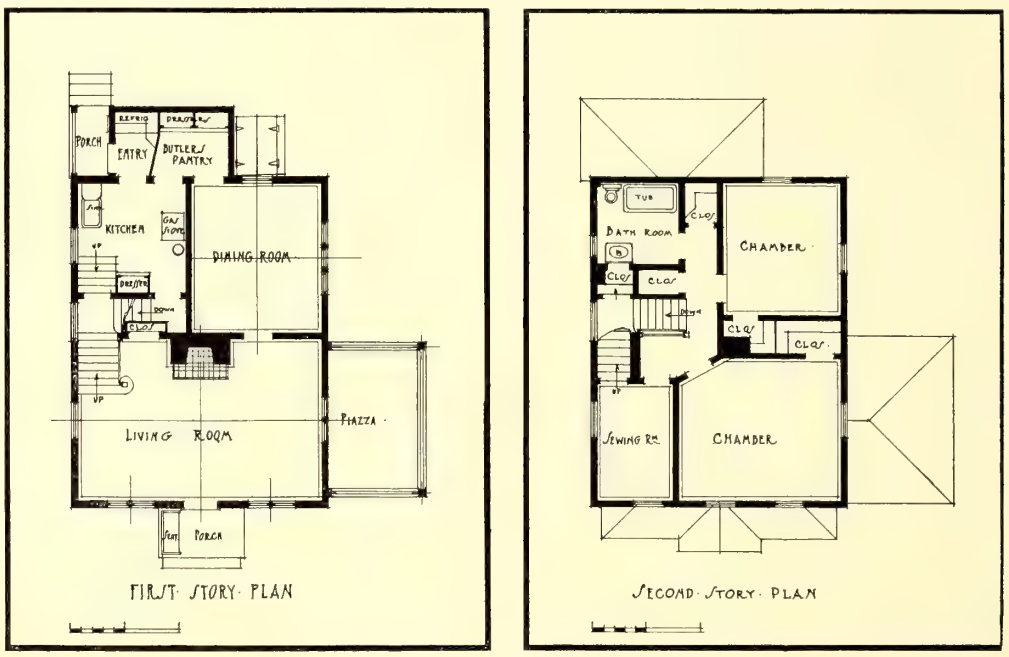


An architect's home at Hasbrouck Heights, New Jersey

House of Mr. F. W. Kinnicott, at Hasbrouck Heights, New Jersey

placed in a recess and other casements reaching to the floor which open upon a veranda. The bedrooms of the upper floor are lighted by windows placed in deep dormers for which the slope of the gambrel roof gives sufficient space.

The little home of Mr. F. W. Kinnicott, at Hasbrouck Heights, New Jersey, is as different as possible from the average suburban home and perhaps its being so out of the ordinary constitutes one of its chief charms. When a house is said to be unusual it generally means that it is freakish, but nothing could be quainter and yet more practical and satisfying than this demure little cottage with its well-spaced windows, the hood across the front and the arrangement of vestibule with its transom above the entrance. Fully half of the space upon the lower floor is occupied by the living-room, into which the entrance door opens. A large fireplace is here built and at one side the stairway leads to the floor above. The stairs are so arranged that they form a feature of considerable decorative value and connect from the landing with steps into the kitchen, which greatly increases their practical value. Just beyond the living-room is the dining-room, which connects through the pantry with the kitchen. A window in the living-room opens upon a veranda which is useful from a decorative as well as a practical standpoint, for it greatly extends the horizontal dimensions of the house and prevents what would otherwise be a rather tall and narrow building. At the same time it provides with its screened openings the out-of-door lounging place which is obviously so very necessary for any completely successful country or suburban home.



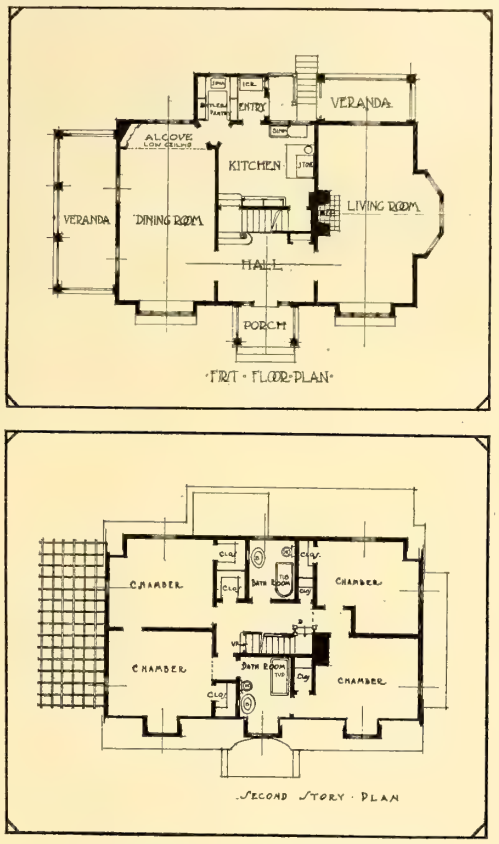
Floor plans of the Kinnicott house

Front of an architect's house at Hasbrouck Heights, New Jersey

The house of Mr. E. Edwards, also at Hasbrouck Heights, which with its floor diagrams is shown on page 173, is an especially pleasing example of what we know as the Dutch Colonial type. No effort has been made to preserve the somewhat austere lines of the early Dutch architecture, and the designing has been quite freely handled and yet kept within the boundaries of excellent taste. The cottage is two stories high, as houses of this kind of architecture are apt to be. It presents a very broad and well balanced exterior with its entrance placed at the middle and the eaves brought low over the windows and shallow oriels of the ground floor. A pergola is extended across one entire end of the house and its timbers are supported upon fluted columns with Ionic capitals, which are also used at either side of the little entrance portico with its arched hood which covers the doorway. The gambrel roof is broken by three dormers with very simple pediments, and the windows which they contain are fitted with small panes, as are the windows of the house throughout.

To afford as much space as possible for the main rooms upon the ground floor a departure has been made from the interior arrange-

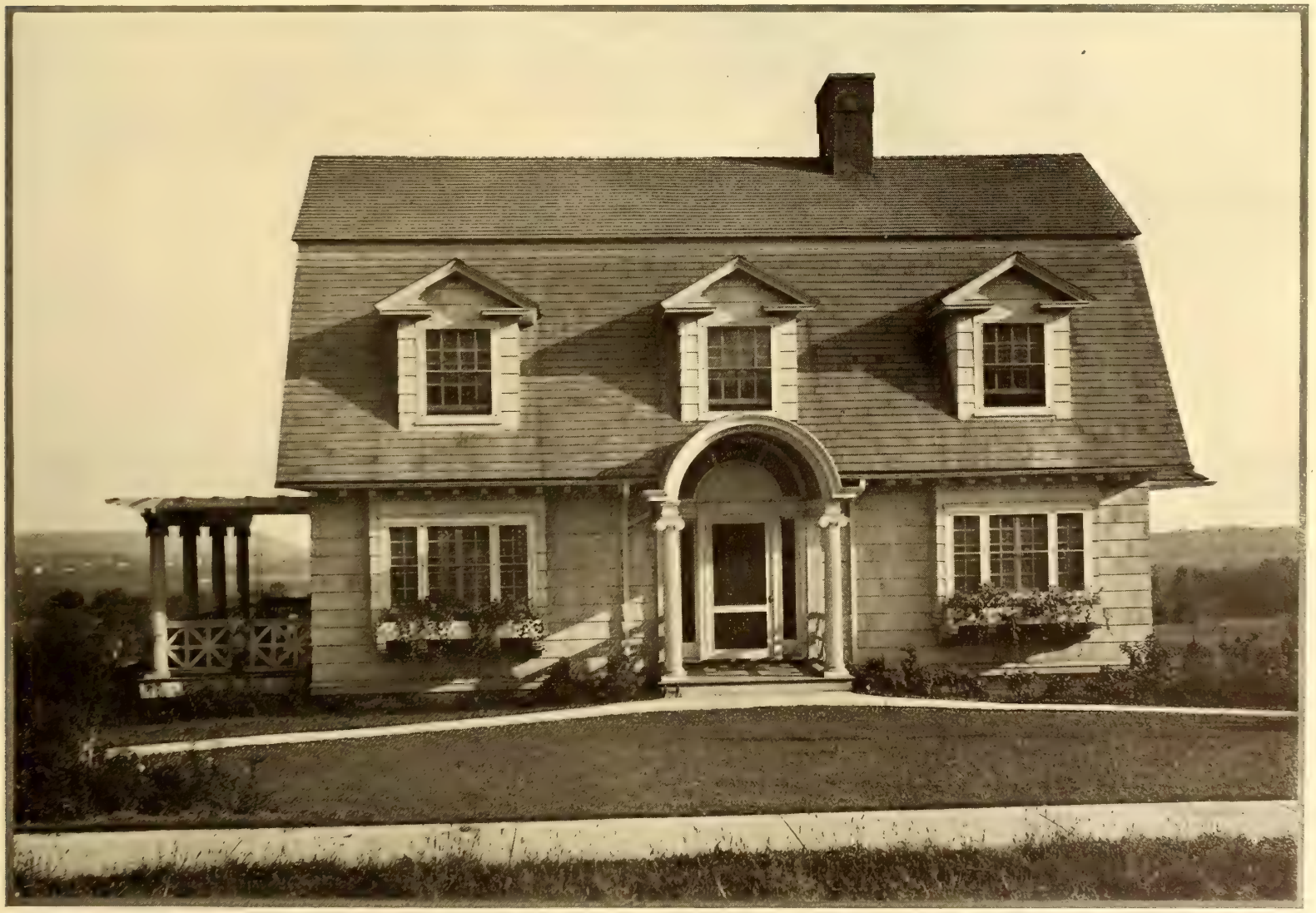
ment which a gambrel-roofed exterior immediately suggests. A house of this type is often planned with a hall dividing it and with rooms at either side, which is, of course, the plan upon which the early examples were built. Here the entrance door opens into a hall which is square or nearly so, with the stairway placed just opposite. The lower landing of the staircase is placed two or three steps from the floor and a door upon this landing opens upon a few steps which descend into the kitchen—an arrangement which combines every practical advantage of two stairways with the economy of space which is afforded by the use of one. At either side as one enters the house are doors into living- and dining-room which are unusually attractive by reason of their spacious proportions and tasteful furnishings. The space upon the second floor is divided into four bedrooms, numerous closets and two bathrooms, and a stairway leads to still another floor where there is a garret space and also a room for a maid.



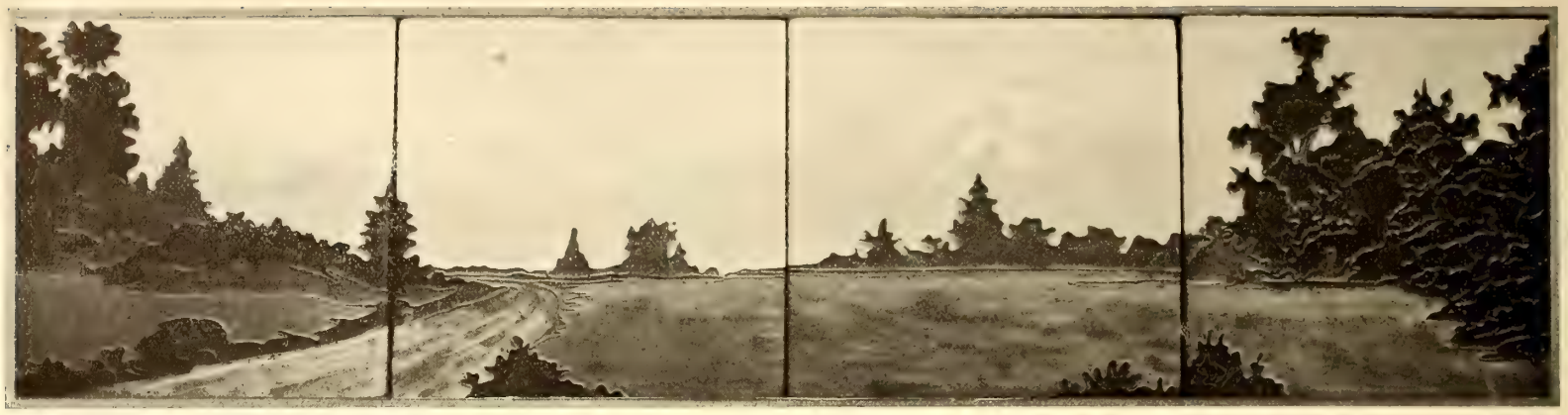
Floor plans of the Edwards house

Someone has said that with the completion of a house and its occupation by the family which is to dwell within it the actual making of a home has been merely begun. This is particularly true of a home in country or suburbs where much planting and improving of the home grounds must be done, for which time is required. Even with the most endless of resources one cannot produce quite the effect of age within a very brief space of time. The arrangement of the grounds about the Edwards place and such planting as has already been done give promise of even more pleasing results a little later. The house built as it is quite close to the street has a stretch of lawn between the sidewalk and the steps to the entrance portico. The usual planning of course would provide for a straight walk to the doorway, but here a walk approaches the steps from either direction which makes possible the unbroken lawn space before the house and confers a certain effect of space upon the entire surroundings.

The use of flower-boxes at the two oriel windows of the lower floor also bestows an air of refinement and distinction upon the house and one is apt to wonder why this very simple and decorative treatment is not more frequently used. During the greater part of the year the boxes might be filled with a succession of growing plants which would render more beautiful even the most interesting of houses, and during the Winter months they might hold plants of some of the numerous varieties of evergreens which would supply a note of color during the period when the landscape is apt to be rather dull and bleak and color of any kind would be particularly welcome. All these houses, indeed suggest the value of planting as an emphasis to architectural effect whereby the house is "knitted" to its site by Nature's indulgence.



The house of Mr. E. Edwards, at Hasbrouck Heights, New Jersey. A small house of great distinction and character



This frieze of pictorial tiles bearing a continuous landscape design is especially well devised for decoration

Some Domestic Uses for Tiles

By Norris N. Strathfield
Photographs by T. C. Turner

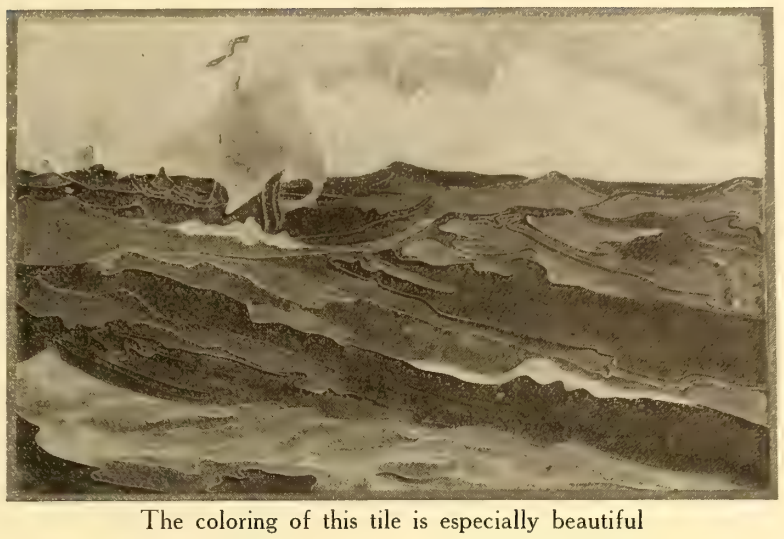
HOME builders and architects are realizing as never before the decorative possibilities of tiles in numerous places where their use combines beauty of effect with the durability which was once considered their most desirable quality. A generation ago tile making might have been considered one of the "lost arts" along with the making of "silver lustre" and colored engravings, and it is only within the past few years that we have progressed beyond the point of using only the white glazed tiles which are placed in bathrooms and kitchens chiefly because they are sanitary and easily and quickly cleaned. The revival of this art, like the increased interest in brick as a building material, is due quite as much to our quickened appreciation of the beautiful as to the zeal and energy of the manufacturers in providing these wares for our use.

It is almost impossible to define easily the difference between brick and tiles, for they may be said to be but two slightly different forms of the same thing. Each, in its simplest aspect, is merely a cake of vitreous clay molded into shape, baked into permanent hardness by intense heat and then decorated or left unadorned, according to the use to which it is to be put. The making of bricks and tiles is so ancient that it is not possible to tell just when it was begun. The excavations of the ruins of Nineveh and Babylon have brought to light pavements and walls of tiles which are marvels of beauty. Pliny tells us that Byses began the use of tiles 620 years before the dawn of the Christian era, and they were introduced into Italy just before the beginning of the Renaissance. The art had its origin in the east and reached its highest development in Persia and India and in such parts of Europe as were most affected by eastern influence. It achieved a brilliant success in Spain, where it was introduced by the Moors, and some of the most beautiful and interesting work in the world is the tiling in the Alhambra and other buildings which are relics of the Moorish occupation.

An examination of these ancient tiles shows us that they were used chiefly, although not exclusively, either out-of-doors or in places which were more or less exposed to the weather. Their use with us has been largely as flooring or walling for terraces, conservatories, verandas, vestibules or loggias which are wholly or semi-exposed. As a flooring material the tiles are usually in the form of flags or quarries which are often regarded as bricks rather than tiles, for, as has been noted, it is difficult to draw the line between the two. These paving tiles are made in a great variety of shapes, although those in the form of squares or oblongs are the most popular, and the favorite colors are gray, brown, or the darker shades of red, blue, or green. Their use would be more common were it not that their initial cost is greater than that of wood, but the same reasons urged for the use of brick instead of wood as a building material hold good in an equal degree in urging the use of tiles in place of wood for flooring. Apart from its greater beauty it is imperishable and is not affected by the temperature or the constant wetting and drying to which it is often subjected and which eventually causes the decay of a flooring of wood and

A three-piece frieze of tiles with a naturalistic design of white geese against a landscape background

consequent expense for its renewal. The use of tiles suggests coolness and their interesting texture makes them valuable in many places where wooden floors, stained or painted, would not be suitable, and in places wholly out-of-doors they are particularly appropriate, for after all they are closely related to the earth, being made of clay, which, of course, is the earth itself. The advantages of tiling or flagging for flooring instead of wood more than compensates for the difference in the initial cost of these materials.



The coloring of this tile is especially beautiful

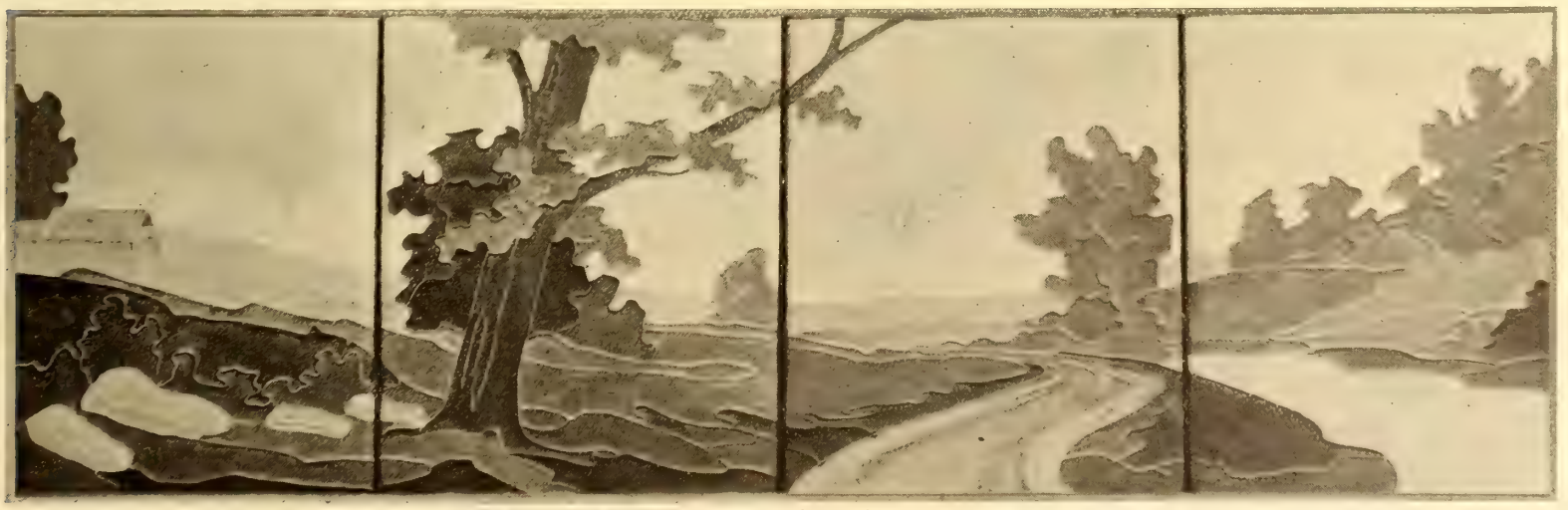
The fireplace is everywhere the center of family life, and tiling is used wherever the fireplace is found; in fact, the use of tiles is so largely in connection with the fireplace that many people think of them chiefly as a decorative adjunct to the mantel or chimney-piece. At any rate, their use in this way is of wide and increasing interest, for manufacturers are vying with one another in making their tiles for this purpose more and more beautiful and alluring.

The usual custom has been to set tiles around the fireplace opening. They may be of plain surfaces or decorated in any number of ways, either with set, formal figures or so arranged that a continuous scene is shown which may either extend across the top of the opening or down the two sides as well. The variety of design is bewildering and a fireplace almost anywhere may be fitted with tiles decorated in accordance with the purpose of the room. A nursery fireplace may be set with squares showing the letters of the alphabet or children playing games of different kinds, or the tiles might illustrate the stories of Cinderella, Jack the Giant Killer or Little Red Riding Hood. For the library a very interesting treatment might show the signs of the zodiac worked out in two or more colors, and not long ago a particularly interesting assortment of tiles was introduced showing in the softest of greens, old reds, blues and buffs numerous old buildings in Boston such as the Old State House, Faneuil Hall and the Old North Church. The designs were made strong and effective by combining black with the soft tones of the colors just named.

"Swans and Lily Pond" tile

For use in other parts of the house there are always reproductions of antique tiles which are of never-failing interest, for the art of every country during many centuries has been lavished upon their design. The delft tiles of white and blue, which show the dykes and windmills of Holland, are beautiful in many rooms, and for other uses reproductions of old Spanish tiling in yellow and blue may be selected.

But tiles may be used about the fireplace in other ways than merely as a setting about the opening. Hearths and fireplace linings are often made of heavy tiles sufficiently strong to endure constant use, and entire mantels and chimney-breasts may be built of tiles specially molded, and even the mantel shelf is sometimes one large tile made for this purpose. This seems, of course, to be a most expensive method of fireplace building, but it need not be, for the makers of these fittings supply the tiling ready made, decorated and packed so that merely the setting in place remains to be done, and this is within the ability of any workman of ordinary skill. Not long ago the writer saw in the atalier of some young architects a most fascinating fireplace where the entire hearth and chimney-breast, extending to the ceiling, were of extremely beautiful tiling. Upon small squares of a slightly roughened old blue surface were quaint Byzantine figures worked out in gray. Certain squares bore the initials of the owners and a border was used about the fireplace opening and up either side of the chimney-breast. Across the top there extended a frieze which agreed in character with that placed about the entire room. The arrangement was so wonderfully beautiful that it might have been built of antique tiling, but all of the material had been selected from the open stock of a well-known dealer, acquired at a very moderate cost, cut where needed and set into place by an ordinary workman.



"The Country Road," a richly colored landscape frieze of tiles

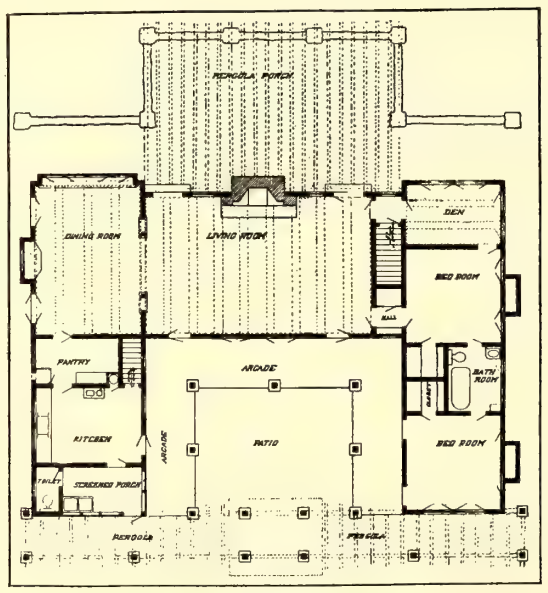
A view of the front of the house showing pergola porch

View of the rear of the house showing the charming patio

A California Home

By Roger L. Vieth

AMONG the many hospitable homes the traveler finds in California is one of especial attraction by reason of its excellent plan and thorough livableness, which added to the distinction of its excellent design makes it a house worthy of note and one which will furnish many points of suggestion to other home builders. This house is owned by Mr. I. E. Levi, at Cupertino, and is situated in a valley that commands a view of Mt. Hamilton, some thirty-six miles away. The interesting external features of the house may be seen from a glance at the accompanying illustrations, but when the planting is further advanced the premises will be even more delightful and inviting. It would not be strictly correct to describe this house as a bungalow inasmuch as it has two stories, one the plan of which is shown here and a second story, which contains two large open-air sleeping-rooms, a dressing-room and a lavatory. The woodwork of Mr. Levi's house is especially beautiful. Some hint of this is to be gained from the illustrations of a corner of the dining-room and of the fireplace side of the living-room shown herewith. The views from the great windows commanding the surrounding countryside of the valley are very lovely and the owner of this beautiful home in California has left nothing undone to make the premises homelike and interesting.



Plan of the first floor

Not the least interesting thing about this house is the fact that the owner, who designed and built it himself, devised an earthquake-proof foundation which has demonstrated its practicability in already withstanding a severe shock. Six weeks from the time Mr. Levi started his house he was living in it! To effect this rapid construction, and to do it thoroughly and with safety, twenty carpenters, two masons, two hod-carriers, several plumbers, electricians and laborers were employed.

Dining-room, with view of Mt. Hamilton, 36 miles distant

The great living-room with its beamed effective ceiling

The lines of the roof of this interesting California house, placed upon several levels, strongly emphasize its Japanese tendency

The Western Home of a Musician

By Thomas R. Thorndyke

THE cosmopolitanism of an American city is generally expressed in the variety of its architecture, and the diversity is apt to be even greater in the suburban districts, where space affords opportunity for wider expansion than is possible within the narrow dimensions of a city lot. This is true of cities upon the Pacific coast in even a greater degree than of those in the Eastern states, for these cities of the West are the ports through which comes intercourse with the Orient, and the influence of China and Japan constitutes a factor with which reckoning must be made. This influence is strongly felt in the architecture of California, for there are found many homes which are either frankly adaptations of Japanese motifs or combinations of several styles among which the Japanese seems to prevail. A home built by an artist and planned for the practice of some form of art is always interesting, and when such a home is to be built in California where so great a variety of locations are available and where architecture of every possible kind is well represented, the result is sure to be of more than ordinary interest.

The illustrations show the home of Mr. and Mrs. Robert H. Adams, near Los Angeles, California. Mrs. Adams is a musician and in building a home, which she herself has planned to a great extent, a room for the proper rendering of music was naturally one of the chief considerations. A house has therefore been built which fulfills this definite purpose and which is also a home, complete and satisfying, to those who dwell therein. A study of Japanese architecture and its application to what we know as the bungalow type has greatly influenced its planning and the designing of its exterior and interior fittings.

Much of the country about Los Angeles is almost, if not absolutely, level and during the greater part of the year the days are bright and sunny and there is almost no cold weather. This, of course, makes possible a bungalow much different from one built for all the year occupancy in a part of the country where the climate might be very different and where the cold of Winter as well as the heat of Summer must be planned for. The Adams house is an excellent example of the California bungalow, which to the discerning varies greatly from the types found elsewhere. It is placed upon a suburban street where it is surrounded by other suburban homes, but its marked individuality stamps it at once with an air which is all its own. The materials used and the manner in which they are combined suggests at once the Japanese and the clever way in which they secure variety of effect by a judicious use and careful and discriminating combination of the simplest materials. Here the combination is of brick and wood of several varieties. The use of so many kinds of material cannot be recommended for use in many instances, but here they have been very carefully used and the result is exceedingly interesting. The walls of the house, where they are of wood, are arranged in panels with horizontal bands where necessary to balance their planning. The portions built of brick are divided into panels by the use of strips of wood which agree with the strips used for the same purpose upon the walls which are of frame. The arrangement of the roofs carries the Japanese idea still further, for owing to the unusual planning of the house the

front shows several roofs at different levels but all possessing the same general horizontal lines. The rafters which support the roofs are allowed to project somewhat from under the eaves and their ends are rounded off, as are the ends of the timbers of the pergola, which is a very important feature of the exterior of the house. The colors used upon the exterior emphasize the Japanese character of the bungalow, for the brick is dark red laid with gray mortar; the walls of wood are of a greenish-brown and the shingles of the roof have turned black with the effect of the weather. This excellent combination of colors does much to bind the house with its great variety of material into a consistent architectural composition.

The well-designed grill gives entrance into the pantry

Placed rather close to the sidewalk, the house possesses a broad terrace which extends across the entire front. The floor, which is upon two slightly different levels, is paved with brick and the greater part of the terrace is enclosed with the simplest balustrades, which comprise two strips of wood placed horizontally one above the other and joined to low piers of brick which are themselves framed with bands of wood which repeat the effect of the panels of brick framed with wood upon the house itself. The entrance is from the terrace directly into a large and lofty living-room which occupies almost the entire front of the house. This room is the center of family life and is also Mrs. Adams' music-room. The room is almost two stories in height and is planned to provide the accoustic properties so dear to the heart of a musician.

To make them as perfect as possible very few draperies have been used and the walls are very largely of simply finished rough-coated plaster divided into panels by the use of strips of wood. At one end of the living- or music-room is the piano and a built-in cabinet for sheet music. A group of casement windows overlooks the entrance terrace and just below them is a long built-in seat; at one side of the room are placed the stairs which lead to the floor above. At the far end of the living-room, as one enters the house, two steps descend into a small library or study which is divided from the living-room by a heavy horizontal beam. This little room contains a fireplace with chimney-breast of tile and brick, at either side of which is a bookcase which has been built into the space so formed. Close at hand is a wide window-seat, which is really a woodbox which may be filled from outside the house with wood for the fireplace. Merely raising the seat of this built-in settee shows the fuel at hand. Before the fireplace is a large study table and drawn up around the fireside are chairs and a bench in the mission style which are here thoroughly in keeping with their surroundings. The table is covered with the same leather which is used for cushions upon bench and chairs and the furniture is stained to match the woodwork of the walls and ceilings.

The placing of this small study upon a level somewhat below that of the living-room makes possible a balcony just the size of the study itself, and this gallery is reached by a narrow stairway which is built at one side of the fireplace. The balcony, of course, looks down into the living-room and is fitted with a built-in seat and two more seats which hang suspended from the ceiling. The lighting fixtures of the living-room, the little study and the balcony are in the form of small hanging lanterns of copper.

Opening by folding glass doors from the living-room is the dining-room, where the treatment of walls and the arrangement of furniture carry out in a somewhat different manner the idea of dividing space into panels—the same treatment which is used for the exterior of the house. Here strips of wood have been placed upon wall and ceiling where they meet. The walls themselves are divided into panels by strips of wood which are stained mahogany to match

The breakfast-room

The dining-room

the furniture, which is also of mahogany, and the dark tones of this wood form a pleasant contrast with old blue of the rugs and the paper which fills in the panels of the walls. The sideboard is of particular interest, for it has been built in two sections and placed at either side of the door leading into the pantry and the kitchen. Each section is fitted with the usual drawers and shelves and the door between is set with a mirror which is framed in with a wide band of mahogany.

Nowhere in the house, possibly, does the Japanese spirit which dominates this little California home find such complete expression as in a small breakfast-room, which adjoins the dining-room and which also connects with the pantry and the kitchen. This room is placed at the southeast corner of the house and at two sides are placed windows which completely fill the spaces. These windows are covered by plain screens of split bamboo and through them the sunlight is poured into the room where the walls are of buff and the woodwork and a very interesting built-in cabinet are very simply stained. Table and chairs of colored "reedcraft" ware and the window screens of bamboo are stained the same copper color, so that with the buff walls a very beautiful and distinctive effect is created which is made even more decorative by the use of Japanese lanterns of metal which are hung just above the breakfast table. At one side of this room the windows screened with the bamboo shades open upon a broad pergola where upon horizontal timbers are trained vines such as only California can produce, and where the purple blossoms of the wistaria carry even a degree further the Japanese feeling which is here so strong.

The kitchen and the pantry are placed where they may be directly reached from breakfast- and dining-room and are

The spacious high-ceilinged living-room

complete with all the fittings which are required for successful housekeeping. These domestic departments are connected with the living-room through the small alcove, in which are placed the stairs leading to the floor above, and the door by which they connect with this alcove is one of the most interesting features of the house. This door, together with the vertical panels at either side, is of a kind of lattice work, made of wood in a simple but very quaint design and stained to match the woodwork in the living-room, of which it is really a part.

Stairways are almost always interesting, and generally they have more character than any other one part of the house. A very successful staircase has been built which is placed, as has been said, in a recess or alcove which opens from the living-room. It is partially screened by a low partition of paneled wood, upon which is placed an earthenware jar covered with wicker. Behind this low parapet or screen the stairs ascend with several square landings upon one of which is placed a small group of casement windows; upon another landing a mirror is placed where it reflects anyone passing up or downstairs, this being a clever idea of Mrs. Adam's and one which is the greatest possible convenience, for it gives one an opportunity for a final survey of her appearance before entering the music-room below.

The house is so arranged that only a portion of it is two full stories in height. The part which contains the living-room, study and balcony is somewhat less than two stories and the bedrooms are placed above the dining-room, breakfast-room and kitchen, where ample space is obtained. The stairway leads, therefore, to a small hall upon which open three bedrooms and a bathroom. These rooms have windows facing in several directions and the grounds which they

The lounging balcony of the living-room

The living-room showing lounging balcony

overlook are being made into a garden designed and built in true Japanese fashion, with the dwarfed trees, small bridges over water, stone lanterns and all the other effects which make a garden in Japan or its counterpart in California a spot so quaint and delightful.

Life in California is lived so largely in the open that one naturally thinks of a bungalow in southern California as having a patio or some kind of a living-room out-of-doors as a social center quite as important as the living-room with its fireplace, study table and cushioned seats. The Adams bungalow is provided with a veranda which is enclosed by the house upon three sides and which fulfills every expectation made of a patio in this land of sunshine and flowers. Here the floor is covered with rugs, of matting or woven grass; hickory and bamboo chairs are grouped about and hanging baskets filled with growing ferns and blooming plants are suspended from above. Lighting at night is supplied from small metal lanterns of Japanese design, which are fastened to the walls and provided with electric current.

The vegetation of California is so wonderful that with only a very little care and cultivation the most astonishing results may be secured with all kinds of flowering plants and vines. No doubt, therefore, that within a few years this little Los Angeles home will be a bower of floral beauty and its Japanese garden will glow with flowers which will make it more than ever a transplanted bit of the "Flowery Kingdom."

The setting of a home of such pronounced individuality, however, must be planned with the utmost care. Placed as it is upon a suburban street and in the vicinity of other houses of varieties somewhat different, it would be well to separate it to some extent from its neighbors. This does not mean that a high wall should be built about the place, but that tall growing shrubbery might be planted about the boundaries of the plot so that a screen might be created which would prevent the quaintness of the house being spoiled by direct competition with other buildings of a wholly different order.

A corner of the comfortable living-porch

This is true in even a greater degree of the garden which, as has been said, is being made upon part of the plot. The tendency in planning gardens upon suburban places is to ignore the boundaries of individual gardens and to allow them to form, as far as possible, one large and beautiful garden planned in sections, as this treatment greatly enhances the beauty of them all. It will be readily seen, however, that a Japanese garden would suffer irreparably in being thus brought into such close contact with other garden spots so entirely different in character. Its delicate beauty would be quite lost without bestowing any benefit upon the other garden spaces which might adjoin. For planning a division between such a garden and the neighbor's there are various tall shrubs or low trees which may be in keeping with the Japanese garden as well as with the others. Evergreens of various kinds are appropriate, for they belong to Japan no less than to America. The Japanese maple is so commonly used in gardens everywhere that we may claim it as well as the Japanese. Low maples and rather tall evergreens therefore might be used to define the boundaries of the garden and to provide the setting necessary for the proper development of such a spot.

If it be desired to connect such a garden with others which may adjoin, the connection might be through an arbor or pergola draped with vines, and placed between a garden planned in American fashion and one modeled after those of Japan the character of both gardens would be preserved.

View of the Adams house before planting was commenced

The brick terrace on the living-room side of the house

Raising Ducks on the Small Place

By E. I. Farrington

MANY people with only a little land can keep ducks to better advantage than hens. At the same time, the owners of large estates find ducks well worth raising both because they are attractive to look upon and because they contribute a desirable delicacy to the table. It really does not matter whether the flock be large or small, or whether there be water for the birds to swim in or not. A dry goods box will do for a house, if there is nothing better, and the amount of attention required is much less than is demanded by a flock of hens.

Ducks are remarkably free from disease and seldom troubled with vermin. Neither perch nor dropping-board is required in the house they occupy, for they roost on the floor. To be sure, the floors must be kept dry, but that is easily accomplished by throwing in more bedding in the shape of straw or shavings when the need requires and cleaning out the house once a month.

Low fences will confine ducks and the birds are driven about with the greatest ease if not frightened. They grow much faster than hens and begin to lay when younger. After laying becomes well established, the eggs run surprisingly fertile and the percentage of young birds hatched is considerably larger, as a rule, than when eggs from hens are used. At the same time, for it is only fair to set forth the drawbacks along with the advantages, four weeks are required for incubation and the eggs must be set quickly, not being kept over a week. Likewise, duck eggs have thin yolk cells, which are easily ruptured, so that the eggs must be handled carefully. Furthermore, the shells are tough, and considerable moisture is required during the hatching period, but this is easily supplied, when the natural method of incubation is being followed, by sprinkling the eggs every day, after the second week. The eggs are not laid in nests, but on the floor of the house or on the ground, and usually in the early morning, so that it is customary to keep the laying birds confined until the day is several hours advanced, for if allowed to wander, they will not take the trouble to return to the house in order to lay their eggs, but deposit them wherever they happen to be.

An Indian Runner drake of the best type

The eggs should be gathered before they have been exposed to the cold long enough to freeze and are best kept in a cool and dark place, and the quicker they are set, the better.

Ducks are kept for two purposes, meat and eggs. Many readers will be surprised, no doubt, to learn that people keep ducks almost solely for the eggs they lay and that there is a market for these eggs. This is rather an innovation, to be sure, and has come about through the introduction of the Indian Runner duck as a commercial experiment. Already large numbers of these ducks are being raised, largely by town people who have only a little land, suburbanites and farmers, who find their breeding a profitable side line. Several women have taken up the growing of Indian Runners, Mrs. Andrew Brooks of Auburn, N. Y., being one of the most prominent, with results, apparently, which are highly successful from a pecuniary point of view. No doubt the demand for hatching eggs and breeding ducks will be sufficient for some time to promise the disposal of considerable stock in this way.

The beginner, however, should be sure to get Indian Runners of the English standard's requirements, or he will find himself in bad company. The ducks imported from England lay white eggs and a great many of them. The American standard show type has had alien blood introduced in order to produce solid fawn color with no penciling in the plumage of the females and to get drakes with head and rump markings much the same as the body color. As a result, some of the characteristics of the pure Indian Runner have been lost, fewer eggs are laid and the eggs often have a greenish tinge. The market wants white eggs, so that it is well to be careful about the purchase of breeding stock. Breeders in this country are having a spirited debate over the question of changing the American standard.

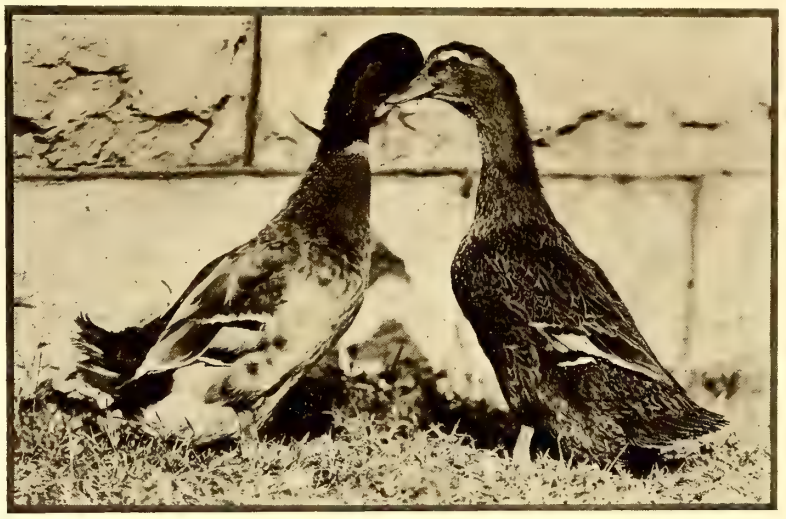
The Indian Runners lay day after day for weeks without a break. They have often been known to lay over 200 eggs a year, and frequently are referred to as the Leghorns of the duck family. Purely as egg-laying machines, they may be rated higher than hens, and the eggs are larger and richer. The eggs weigh about six to a pound and two of them are equal to three hen eggs in the kitchen. Probably 180 eggs a year would be considered a satisfactory output for an average bird. That would mean a total of thirty pounds, or seven and a half times the bird's own weight. Put in that way, the figures sound surprisingly large.

It is not fair to judge the eggs of Indian Runners by those which other breeds lay. They have a delicacy of flavor and an obvious richness which speedily commend them to epicures. At first there is generally some prejudice against duck eggs to be overcome, although many people prefer them to the eggs laid by hens. The wholesome white color does much to remove the prejudice in the case of Indian Runners and after a few have been eaten they are selected on their merits. Suburban and other people who like to produce their own eggs in order to be sure of their quality can well afford to investigate the Indian Runners to see whether they cannot be kept with less bother and expense than hens and with a greater degree of satisfaction as regards their eggs.

When it comes to ducks for meat, the Indian Runner drops to the rear and the White Pekin comes to the front

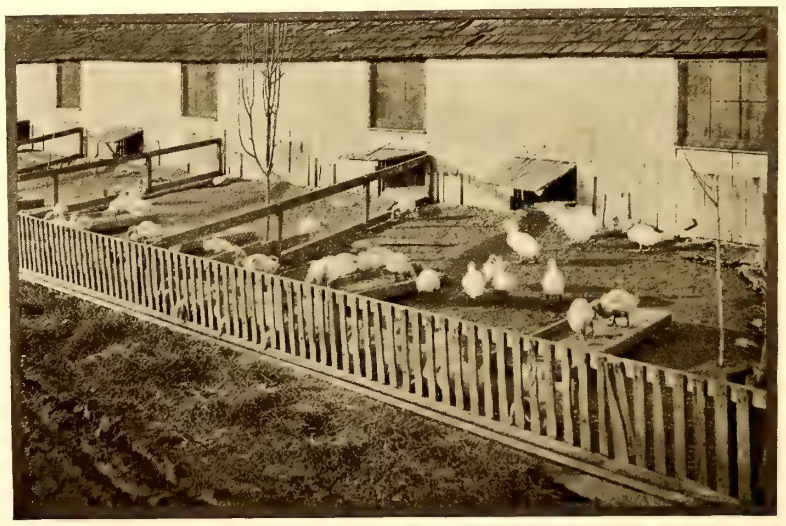
of the stage. This is the breed used almost exclusively on commercial duck plants, and for several reasons. The Pekin is a large bird, and grows with marvelous rapidity, often reaching a weight of six pounds in ten or twelve weeks. It is easily raised and fattened. Being pure white, the feathers add materially to the profits. Eight to ten birds will yield a pound of feathers, worth from forty to fifty cents as the market may run. That is assuming that the birds are dry picked. If they are scalded, the feathers are not worth as much by five or six cents a pound.

Pekin ducks have fine white flesh and can be raised in brooders very early in the year. They are sold when between ten and twelve weeks old and there is a large and growing demand. Pekin ducks are easy to keep and easy to raise. A pen of four or five with one drake will be enough to insure as many ducklings as the average amateur can well handle. The Pekins lay fewer eggs than the Indian Runners, but from sixty to a hundred may be expected. Generally those laid at the beginning of the season are not very fertile, so that it hardly pays to set them. On large plants the birds are forced by heavy feeding so that they lay in December, but the amateur may be satisfied to get his first eggs in late January or early the following month.



Rouen ducks are large, docile and particularly good for the small estate

There is yet another excellent breed of ducks, the Rouen, which commends itself to the man or woman who wants to keep just a few and does not want to give them much attention. Rouen ducks grow as large as Pekins but do not mature as fast, and their brown plumage makes them less valuable as market ducks. Neither do they lay as many eggs as the Indian Runners, but to run at large, foraging for much of their living, mixing with the other fowls and still proving satisfactory as to egg producing and table qualities, the Rouens are not easily excelled. Indian Runners and Pekins should not be allowed in the yard with other feathered stock. It is different with the Rouens, because they are peaceable and docile. They will subsist largely on the waste of a farm, and are satisfied with a rough shed as protection from the weather.



Low fences will confine ducks within bound

People who have been accustomed to caring for hens will be surprised, agreeably, no doubt, to find that ducks require very little coddling even while they give just as good an account of themselves. The very fact that there are no dropping-boards to clean off means considerable saving in labor, as well as doing away with a disagreeable task. No whitewashing of the house is necessary, for there are no insect pests to combat, and there is no doctoring of roup and gapes. One disadvantage lies in the quack of the ducks, which may become annoyingly monotonous if the birds are penned in close proximity to a house; a condition which may be readily avoided in time. Some breeders claim that the Indian Runners make less noise than other breeds.

There are several points wherein the care of ducks differs materially from that demanded by hens. Hens, for instance, thrive on dry rations, while ducks must have a soft mash, for the reason that they have no real crop and the food goes more directly to the digestive organs than with hens. At the same time, a little whole grain may be given. Commercial breeders often feed the laying stock a luncheon of whole corn. Soft mash, though, is the regular diet for old and young birds alike.

Hens may be kept for a long time in one yard, but if kept for more than a year or two in a small enclosure, ducks make the ground soft and muddy—"puddle" it, as the saying goes. This result can be avoided, though, by using the yards only a part of the year, spading or ploughing up the ground and sowing rye as soon as the ducks have been removed. This practice serves a doubly useful purpose; it keeps the ground in good condition and it provides a crop of green food for the birds to eat—and green food they must have in order to do well.

Ducks are nervous and easily disturbed, especially when housed in large flocks. For that reason it is well not to keep more than fifty young birds in the same pen or yard. Sometimes a sudden and unusual noise will cause them to stampede, climbing over each other in their blind fright, and bringing about disastrous results. That being the case, it is well to have them in small flocks and to encourage small boys to stay away. It is not uncommon for ducks to become affrighted at night, when there are many together, so that they all set up a tremendous quacking and rush about in wild confusion. This sort of trouble may be prevented for the most part by keeping a lighted lantern in each pen.

Although ducks do not need water to swim in, they require a great quantity to drink. What is more, this water must always be given in vessels sufficiently deep so that the ducks may bury their entire beaks in the water. The reason for this necessity lies in the fact that nostrils are easily clogged by the soft mash which they eat or by the mud into which they sometimes delve so that they would smother if they could not wash it out. When they are eating, they continually leave the feeding trough to waddle to the drinking fountain to drink and to wash their bills. It often seems difficult to convince people that ducks really do not require water in which to bathe. It is a demonstrable fact, however, and outraged though Nature may be, the birds get along just as well if they never have an opportunity to stick their webbed feet into water as long as they live. It is true that some breeders hold the opinion that the eggs are more fertile when the ducks have water for taking the kind of exercise which is most natural to them, but it is also true that some of the largest and most successful duck plants in the country contain neither pond

nor running stream. Even when there is water in abundance at hand, the ducklings should not be allowed to paddle in it until they are feathered out. Indeed, even the watering dishes should be of a kind which will prevent the ducklings splashing into them and getting their backs wet. Sometimes ducklings drown in a hard rain storm, so that it is wise to get them under cover at such a time, just as in the case of chicks.

A well-arranged duck yard

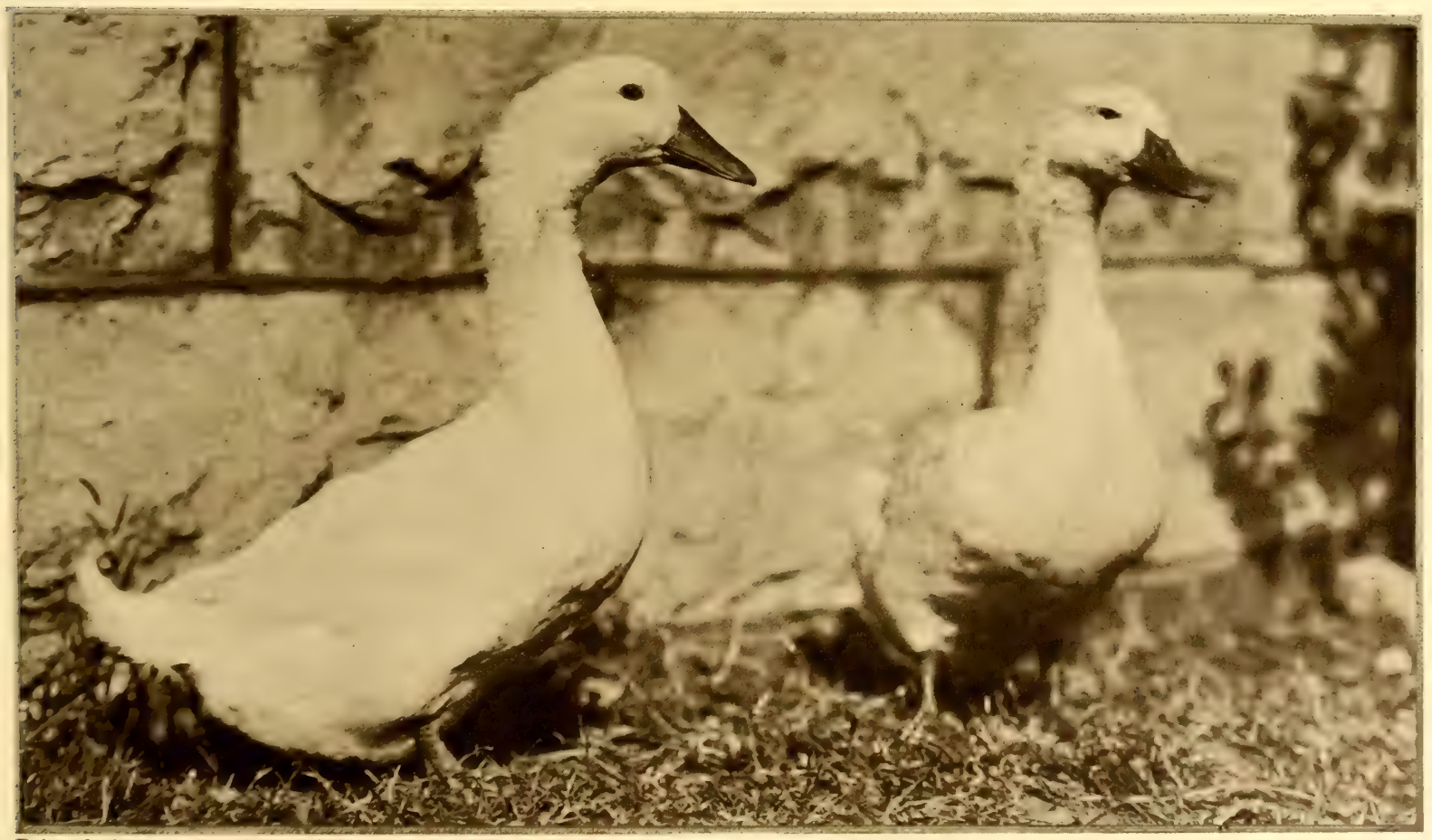
It costs very little to equip a small duck plant which will answer for an amateur. Of course, it can be made as ornate as may be desired on the exterior, if it is where appearance counts, but a simple little house only high enough for a man to work in, and constructed of single boards covered with roofing paper or with the cracks battened, is sufficient so far as strict utility goes. Indeed, that is more than is necessary, even when several breeding ducks are kept. Boxes six feet long, three feet wide and two feet high, made of rough boards, with a door occupying all of one end and containing holes for ventilation will answer every needful purpose and will accommodate five ducks. There should be two inches of clean straw on the floor all the time and the boxes must be kept under shelter, as in an open shed, or have a sloping roof arranged which will shed water. The imperative requirements of a duck house are that it shall be free from draughts and dampness. Mere cold the ducks do not seem to mind, but dampness is disastrous.

Two-inch mesh, No. 19 chicken wire makes the best fence. It is light and may be stapled to pointed stakes easily driven into the ground. Such a fence can be rolled up, stakes and all, when it is desired to plow up the yard, and may just as easily be transferred to another location.

Ducks may be hatched in incubators if desired, and that is the practice, of course, on all large plants. If an incubator is being bought for this purpose, the purchaser should remember that it will not accommodate as many duck as hen eggs. A machine with a rated capacity of seventy hen eggs will take fifty-six duck eggs; a machine to accommodate 244 hen eggs will hold 200 duck eggs; a 390 hen-egg machine has room for 300 duck eggs.

When using an incubator for ducks, it is well to remember that much moisture is required. Where a cement floor makes it possible the floor is often kept wet with a watering can. The machine is run at 102 for the first week or two and then at 103. The ducklings are best left for thirty-six hours before they are removed to the brooder, which should be ready for them at a temperature of ninety. The ducklings need heat for a much shorter time than chickens. Although much will depend upon the weather, the temperature ought to be materially lowered as the birds become stronger so that it will be down to eighty when they are two weeks old, and as soon as they begin to forsake the hover, heat may be discontinued. It is well for the birds to run outside as soon as weather conditions are favorable. They need good ventilation. Probably more ducklings are killed from too much heat in the brooders than any other cause. They are susceptible to heat, anyway, which is not to be wondered at when the thickness and warmth of their feathers is considered. In Summer it is well to have a shelter of rough boards or of canvas, if there is no natural shade in the yards. Sometimes young ducks get on their backs and find much difficulty in getting right side up again, unless they

(*Continued on page 191*)



Pekin ducks are pure white and they grow to full size within a few months from hatching. They are considered the best ducks for the market

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

TRANSFORMING THE WINTER INTERIOR

By Harry Martin Yeomans
Photograph by T. C. Turner

THE rooms of the all-the-year-round house do not have to be made dreary and funereal, the pictures shrouded in dust covers that make them appear like so many white spots on the walls, and the furniture encased in drab, somber slips, just because the Summer season is at hand, although with some people, this seems to be the mistaken idea of what the interior of a house should resemble during the outdoor season. There are dreary days in Summer when one cannot be out of doors, so the house should always be made as cheerful and livable as possible, for this, if for no other reason. It is often difficult to choose color schemes and furnishings which will adapt themselves successfully to both Summer and Winter use, but that should not deter one from transforming the Winter house into a Summer retreat when the gratifying results that can be obtained with very little trouble and expense are realized.

HEAVY draperies and rugs that make a room delightfully cosy in Winter will have the effect of making the atmosphere stuffy and oppressive during the warm months. It is better to remove the pictures than to cover them up. Heavy draperies should be changed for light and airy fabrics and slip covers of bright cheerful colors for the sofa and easy chairs, will change the whole atmosphere of a room. In one little house in the country the putting on of the Summer garb was accomplished in a simple manner. The owner appreciated the decorative value of the bright flowered English cretonnes and chintzes as Summer draperies, and used them in profusion in dining-room, library and living-room. The dining-room had white sash-curtains at the window and long over-curtains of rose and green cretonne, which harmonized effectively with the Colonial spirit of this dining-room. The Chippendale chairs had slip-seats which facilitated their being covered with the cretonne and also its removal.

THE living-room had crisp, fresh, sill-length curtains of lawn at the windows, over-curtains of cretonne showing yellow roses and a mass of green foliage. Neatly fitted furniture covers of this same material covered the sofa and easy chairs, and two yellow enameled chairs of willow upholstered in cretonne were added, and also a large gray and yellow rag rug. These rugs make the cheapest kind of a Summer floor covering, as one measuring about eight by ten feet can be obtained for six dollars. The color scheme of the library was rather dark in tone with dark brown stained woodwork, so the flowered cretonne could not be used here. A blue, green and écru Jacobean pattern was selected instead, and used for long curtains at the windows and made into slip covers for the Davenport and other leather upholstered furniture. Vases were kept full of flowers, not always from the garden, but Golden Rod, Wild Carrot, green foliage and the wild plants helped to make this all-the-year-round house a cool and inviting place in Summer.

THE plan of this homemaker is commendable in every way, as the draperies and slip-covers were cleaned before being put away in the Fall and her house could put on its Summer dress at almost a moment's notice. And the furniture covers of cretonne not only protected the furniture but were decorative as well.

AT this season the Summer dress for the little house is under consideration, when, perhaps, as soiled or faded wall-papers are going to be replaced and the woodwork treated to new paint, it is not inappropriate to mention a few general facts relative to the refurbishing of the little house. Interior decoration is something like the doctor's profession, inasmuch as no two cases or problems are exactly alike. Each needs individual treatment, so it is difficult to formulate any hard and fast rules which will exactly meet the individual requirements of all. There are, however, several well established principles which it is well to bear in mind when planning any new interior work.

EVERY problem of interior decoration should commence with the four walls of the room, which are to be the background for not only the furniture, pictures and whatever else one may elect to place in a room, but also for the individuals who congregate there. So it is always debatable whether plain or figured wall surfaces are the better. For all general purposes, plain wall surfaces, or those that have the effect of being plain, are preferable to those having large repeats. They make a better background for pictures and furnishings, especially when a heterogeneous collection is used; they do not tire the eye, are restful, and should always be used in rooms to be occupied by persons of nervous temperaments. If it is feared that a monotonous effect will be the result, color and gaiety can be introduced in hangings, upholstery, cushions and lampshades, and the flowered cretonnes and chintzes immediately suggest themselves for this purpose.

THE oatmeal papers, Japanese grasscloth, cartridge papers and the woven effects all make excellent plain wall coverings, but one should not overlook the tinted plaster walls, or the walls that have been treated to several coats of flat, dull paint. These, besides being both beautiful and sanitary, come nearer to being real decoration than wall-papers.

IF decorative wall coverings are employed, the problem at once becomes more difficult. They preclude almost entirely the use of pictures and decorative objects, and it behooves one to have the furniture match as regards general outline, wood, texture and color, or the result will be a

The Indian Tree pattern in tableware is one of the most attractive designs to be had. A 100-piece set will cost $20.79

room the various parts of which will have the appearance of being at war with one another. With figured walls, plain hangings and upholstery matching the general color of the wall covering are fitting accompaniments. Large sharply defined designs should be avoided, as they have a tendency to make rooms appear both small and stuffy. When a light color scheme is being used, nothing will impart to a Summer house the fresh, clean appearance that comes from a plentiful use of ivory-white paint.

THE conclusions to be drawn from the foregoing are that with plain walls it is permissible to use figures or decorative fabrics, but in rooms with figured walls one should use plain textiles for hangings and upholstery, but when in doubt it is best to keep on the safe side and have plain walls.

IN almost any large city, one will frequently chance across a row of houses built exactly alike, and it is always interesting to note some little changes which have been made by one owner and which tend to make his house more attractive than the rest, although the main features have not been altered. In the center of a long row of commonplace, brownstone dwellings, one house stood out prominently and presented a cheerful, attractive countenance to the passerby. At first glance one received the impression that this house differed materially from its neighbors, and it did in effect but not in reality. The window sashes, each containing one large, glaring sheet of glass, had been changed for sashes having six small rectangular panes to each sash. The window frames, sashes, mullions and front door had been painted white, and these simple changes had transformed this gray, somber façade into a neat, trim, attractive house front. The windows of a house will not look like great staring eyes when small panes are used.

CHANGING the window sashes was not one of those improvements which adds to the outward appearance at the expense of the interior effect. The decorative value of small window panes cannot be overestimated, and the breaking up of the window into small sections is preferable to having only one large pane of glass in each section. Some types of houses positively demand them and the Colonial, Elizabethan, half-timbered houses, Mission houses and cottages lose half their charm unless the small-paned windows are generously used. The oblong panes are very often employed but the diamond-shaped ones set in wooden mullions are most attractive and decorative, both from the interior and exterior of a house, and these look especially well in the casement windows. Small panes of leaded glass arranged in a simple geometrical design will lend distinction and interest as well to any window, even in addition to the windows of the houses above mentioned.

FOR obvious reasons it is not always convenient to make radical changes, such as purchasing new sashes or having old ones fitted with new mullions, but there are some economical shortcuts which are worth noting. In a certain apartment the living-room was lighted by a large north window, facing on a court. Black passe partout tape was pasted over the large panes of opaque glass, so as to form diamond-shaped sections, and this simple expedient effectively broke up the barren appearance of this large window. In another room a lattice was made of narrow flat boards and fitted snugly into the sash over the large pane of glass, which gave the effect of a number of small panes in each sash. Any extra expense put into decorative windows is economical in the end, as they become decorative features of the room and need almost no draperies at all; a fabric hanging in straight folds, to be drawn in the evening, being all that is necessary, or a diaphanous material hung close to the window will soften the light and not hide the windows. It is an excellent idea to have small-paned windows when the view is not alluring, as one is then tempted to look at the windows and not *through* them.

PORCELAIN TABLEWARE

HOW often has the eye of the sensitive person been offended and good digestion interfered with by having a dinner served on dishes which did not match and forming a medley of inharmonious color on the table. If the precaution was taken of buying open stock patterns, then broken or marred dishes could easily be replaced, and the table would not have to be set with odds and ends. All of the large shops now carry a great variety of open stock patterns to fit all purposes. The English porcelain, or cottage ware, is very charming and makes very beautiful breakfast sets, so that the same dishes do not have to be used for all three meals. The Indian Tree pattern is especially attractive and comes in three variations of the same design, one of which is shown in the illustration. The main part of the design shows a branch of a tree with pink apple blossoms, treated in the Chinese taste, on a cream ground, with a border of the apple blossoms. The colors are pink, green and brown, and a one hundred-piece dinner set costs $20.79.

IN this connection it must be remembered that the writer is here referring to the table set for the usual formal and semi-formal occasions of the regular family meals, for it is true that the "picnic" luncheon or supper of an impromptu nature may have its dishes set forth on an array of all sorts of plates, pottery and porcelain side by side, perhaps, nevertheless a certain dignity should be sought for when the table is regularly set, which is only to be obtained by the harmonious relation of any part or unit of the service to the other.

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

MAY-TIME IN THE GARDEN

MAY is a month of exciting things for the garden-beginner. If, for the first time, he is engaged in the delectable occupation of coaxing Mother Earth to be kind to his efforts to make his back yard an Eden, or his front yard a paradise of lovely growing things, his enthusiasm must not permit him to overlook the fact that the old-time enemy of all garden-makers since gardens first were—Jack Frost—may still be lurking in the ambush of the promise of an early season. Indeed, I know of no greater discouragement that besets the garden-beginner or the experienced gardener than that of encountering late frosts unprepared for them. Indeed, the experienced gardener will hardly ever permit himself to be caught in such a trap, but for the amateur entering upon his first season one must urge especial diligence in this matter, and remind him that he should not attempt to gain an early start by transplanting either flowers or vegetables of the tenderer sorts until the danger from frosts is quite past. I suppose our first thought, if we are poetically inclined, is for the flowers we associate with the thought of May-time. The clouds of April's showers now appear to the vision as Milton's

". . . . . clouds
That shed May flowers."

which, in Heber's words, "Spring unlocks to paint the laughing soil." To others—the prosaic or the practical—the first thought will be of vegetables. If, then our gardens are to join the hands of poetry and prose before great Nature's altar it will behoove everyone who has a garden to give attention to "flower and food for garden's good" as an old-time rhymster puts it. Therefore, though we start with the more beautiful we shall not neglect the subject of the just as useful.

A May-time flower, the Lily-of-the-Valley, *Convallaria majalis*

IF your Sweet-Peas have been planted early, you must arrange to have on hand brush or trellis support for them, which should be set up just as soon as the new vines reach a height of from five to six inches. Wire will prove an excellent material for the supports and may be strung between posts driven into the ground for the purpose. The writer remembers having seen an arrangement of two posts driven into the ground four feet apart, between which wires were tautly strung (a piece of chicken wire would have been better). On top of each post was placed a circular box in which Sweet Peas of low-growth were also planted. The high-growing plants reached to the top of the wire in due time and this little corner of the garden presented a fence of exquisite, fragrant bloom throughout the Summer. If you have not a cold-frame, you may sow seeds of such flowers as will require planting in some sheltered spot, taking care to cover the ground on any indication of frost. One should bear in mind that the latter part of May is the time for planting the Dahlia, the Gladiolus and the Tuberose. Gladioli planted the last week in May should bloom in August. The last week in May will find it safe to transplant old perennials for border re-arrangements. One must not forget to spray Rose bushes the second week in May. Whale-oil soap is excellent for such purposes. Then the pruning of all the Spring-flowering shrubs must be attended to immediately after they are through blooming.

AS for the vegetable garden, May is the time for planting Bush Beans in the open ground, Lima Beans in cold-frames, Beets for succession, setting out Cabbages, planting Cucumbers (the last week in the month), Lettuce for succession, Melons (last week, or when settled weather is assured), Onions (they may be transplanted now also), Peas for succession, Squashes (settled weather), Sweet Corn for succession, and for setting out Tomatoes when the ground is warm. There are a number of

things, too, that will require attention in the Strawberry bed. Newly set Strawberry plants should have their blossoms removed, and the old plants should now be mulched with clean straw to conserve moisture and to protect the fruit from dust as well as from weedy growths. The main crop of Potatoes will be planted in May, and this will, indeed prove a busy month around the garden.

A NASTURTIUM WALL

NO lovelier color scheme of orange, gold, gray, green and vivid blue was ever conceived by artist than that which has been worked out with a low wall of gray stones, embroidered with nasturtiums, set upon the very edge of Lake Ampersand, in the Adirondack Mountains. The wall extends for a distance of about half a mile or more in the shape of a crescent and mere splashes of gray show through the thick embroidery of flowers and foliage, which hang over the wall to trail in the vivid blue of the water and there to reflect a submerged repetition of wall and blossom in a gorgeous band of orange and of gold. One comes suddenly upon the end of this crescent where it touches a drive through the woods, and, with a quick intake of breath at the loveliness of it, every one pauses to look across the vivid line of curving color and its reflection in the lake. Upon the shore of Lake Placid, some eighteen miles away, another wall of the same sort has been set before the grounds of a bungalow, and both teach the lesson of what may be accomplished in any country spot where there is water, by gathering native stones into a low wall and planting nasturtiums, which care for themselves and offer unending pleasure.

A home-made pergola, rustic in effect, that could be made at small expense and would be suitable as a complement to the garden area of any small home in the country or in the suburbs

The white and the pink Wake-Robin, *Trillium*, is one of the loveliest of wild flowers and bears bringing into cultivation admirably

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

FIXING UP A SMALL HOUSE

By Elizabeth Atwood

IF one will only go about it with the right spirit, there is great pleasure and unlimited satisfaction in fixing up a small house and making it harmonious and beautiful, in spite of the fact that there is little money to spend. Any one with money can buy artistic ability and good taste, even if he does not possess those qualities; but the individual of limited means must study out what to do to make his small home beautiful, even if he has not much artistic skill to begin with.

This study is a development in other ways than in the dressing of his house, if he will allow it to be. If he is just a business man, connected only with the sordid side of money-making and money-getting, he will, in his spare moments, be lifted out of the soul-wearing atmosphere, if, with his sweetheart or his young wife he takes up the study of making his little home a thing of beauty. They will read together the magazines which are fairly brimming with suggestions for decoration. They may follow them, or through these suggestions evolve the scheme of home decoration best suited to their needs—and their pocketbook. When they have done this, I think they are far ahead of the man, who, with plenty of money, has bought his scheme outright.

To me, good taste in home decoration represents good judgment combined with practical common sense. To seek this earnestly is what I mean by having the right spirit. In some, this wonderful thing, good taste, is inherent, but, alas, in others it is not.

It does not seem harmonious, for instance, to put a large sum of money into one or two articles of furniture, and then have them grin at the rest of the house which could not be furnished according to their standard, for lack of funds.

The teachings of simplicity set forth by William Morris have done much for us all, but there are many still who have not been reached. He has banished the old "what-not," so well-named, with its dust-collecting contents, the massive carved furniture, and all the horrors of forty years ago. Now we have the simple lines, the quiet tones, all tending toward a restful and harmonious style of house furnishing and decoration.

This is a boon to the man and woman of moderate means, who do wish to have their children grow up with surroundings calculated to develop in them a love of the beautiful in the world. Say what you will, children do reflect in after life the effect of their early home. The little home, very simple because of stern need, may and should develop the best ideals in the minds of growing children. What kind of an ideal can a room too good for actual use, kept only to impress a caller, develop in the boy or girl living in the dining-room—or with friends who may have them in their home at any time? Parents should think out all these things when making the atmosphere of their small home. I have in mind a home, made on this principle: "What is here is for us, and this is good, too, for our friends." They live in every inch of the house. Having this idea in mind when they began, everything has developed along these lines, and now, although children have come, everything remains harmonious, for the home was prepared for their reception and future care.

The living-room looking into the dining-room

This young couple, when they started out, had no money to spend in decorating the home. They had bought a piano and a sewing machine when they were first housekeeping in the old house which they had bought. They had a few things which "mother" gave them, and had been compelled to buy a few necessary things like stoves, tables and chairs. They had no debts but neither did they have any money. But they had the aforesaid good taste, unlimited perseverance and good health.

The old house presented many problems to the young couple who set about to transform it

But what a proposition the old home was! They even had to tear down partitions to make the rooms the right size. A bedroom was in this way added to what used to be the most sacred "best room," and the

two made a large living-room with five windows, two to the south and three to the west. The old kitchen was made into a dining-room, and a pantry and passageway was made into a kitchen. These, with one large bedroom constituted the house, save for one finished room in the attic.

The old kitchen was made into a dining-room

All of these improvements were slow of completion, for the business of living took most of their time. Their greatest problem was the walls, and next the floors. During this period they got together enough money to buy for the walls some dull red burlap. The walls were too rough to take paper unless done over, and they could not afford to do this. Neither one of them knew how to "hang" paper, but both could tack on the burlap; so this was used for the dining-room and the large living-room.

The bedroom walls were covered with pale blue building paper, which they bought very cheaply. They managed to get this on the wall themselves, for it was heavy and had no pattern, proving that "where there is a will there is a way." The young woman said, "What is the use of a college education if mere walls are to beat you?" The kitchen walls and open shelves were all painted a pale chocolate color lined off with red, for the young woman was a crank on light, and this color caught all the rays which came through the one window. Before the burlap went on the walls, the woodwork of the other rooms was painted a very light creamy yellow.

It was not possible for them to have hardwood floors. They did not believe in carpets, and could not have them anyway. They had a few good rugs, wedding presents, so they decided on painted floors. They chose a dull shade of sage-green, and the Oriental rugs look very well upon it, I assure you; and, as the little mistress said, "greenish-gray is very pleasant to live with."

A cot bed was made into a couch in one corner, and with pillows (filled with the excelsior from their moving) for "backers," it was comfortable and good to look at. Another corner had two boxes, two feet wide and five feet long, covered with cushions, and made to hold dresses which were not in daily use, making a charming corner seat.

This up-to-date young woman also said, "If we had fewer and better made chairs, and more window seats, we and our children would be more comfortable. So choose carefully what you put in your living-room. Try to put into it a fireplace, a few good books, some musical instruments, a fine picture, or photographs of fine ones, a big seat or couch, and some comfortable cushions, a steady table, and a good lamp; then, if the room is of fair size, it will look cheerful and like a living-room."

These young people had books, beautiful bric-a-brac and fine china and cut-glass, all given them when they were married. There was not one spot in this new-old house where these could be put except upon the floor. They had no money to spend on a bookcase and the pantry had been made into a kitchen. The young man was handy and very resourceful. He bought from time to time a few feet of eight-inch planed boards. He designed and made bracket ends for shelves, which were placed from a mantel post around the corner to the window frame; from window frame to window frame, and so on around the room. (The illustration of their fireplace shows the effect.)

All this took time, and many long evenings of work, but in the end the result was delightful. These shelves were stained rather dark, so that they made a fitting home for the books. The statuary, brasses and other ornaments show well against the dark red wall. Soft, thin yellow hangings in the windows make this room one of the most attractive rooms I was ever in. Figure for yourself the actual cost. It would be impossible to buy the personal charm of it, however.

The living-room was made from two bedrooms

Then our young man turned his attention to the dining-room. Again he designed the shelf spacing and bracket ends. Here the articles of china found at last a place to stay. Here, in evidence, they delight the eye when not in use. They serve to train one's taste on these open shelves far better than they could shut away in a cupboard, and only seen when used. A sliding door opens a space between these shelves and the working shelf of the kitchen, and through this the little mother can watch her children at play while she does her kitchen work, and also can pass the clean dishes, saving many steps.

In the illustration of the dining-room please notice the little holders for the pewter platter and the plate. Then the cupboards under the shelves, which make good places for crackers, cake and many other articles always calling for a dry, cool place.

I hear someone saying, "Well, we are not all handy, and we cannot always whittle out our own brackets." No one knows really what he can do until he tries, and perhaps even this doubter might discover latent possibilities.

Here is how another moneyless couple achieved success. Having been impressed by the beauty of the little home they used some of the same ideas, and the first couple felt that success was theirs.

The young man who had been clever enough to whittle out his brackets and was glad to be able to help another struggling couple, made a pattern for the second young man, who was not so clever, and who had no time to whittle his way. He took this pattern to a saw-mill, and had the brackets sawed out for him; bought the shelf boards, and saved much time. However, the man who whittled loved the work, and got great pleasure out of it.

A novel way of serving fruit. See page 192

The second young man had high ceilings in his house to bother him. Some vandal had bricked up the old fireplace, but the white framework of the old mantle still was there. The woodwork was white and the wall paper was almost white. Another task even more hopeless was this of making a cosy, homelike room out of such unpromising material. He painted the book shelves white; that was necessary. But the book covers gave color, and the shelves dividing the great height and lonesome walls, saved the day. Here was the good taste of the first young couple passed on.

The young wife of the second home more than did her part in the homemaking. Curtains of scrim were hemstitched, and a drawn-work band put in each. Then side curtains of dark green softened the great glare of white. A corner-seat with covering of flowered tapestry, a piano, a table, and a few good chairs, converted this unpromising room into a hospitable, restful, homelike place.

The dining-room with one row of shelves for special dishes was changed by this dividing line into the living-room. Simple cheesecloth curtains, stenciled, completed the charm of this room with its plain mission furniture given them at their wedding.

I know that the charm of these two homes has been of great value to others, even though they were unconscious of it, for these homes are both simple and true, and reflect the characters of their occupants in a multiplicity of ways.

A CHESTNUT HILL GARDEN

(*Continued from page 157*)

to the flaming burst of color. Geraniums trained on frames in the shape of pyramids mark the corners of one square, Cassia trees, whose blossoms are the yellowest of all yellow things, mark another, at yet other points are swelling bushes of Box or damask Roses, brought hither from a former home, blooming with unabated vigor and fragrance on stocks more than a century old. Scents as well as colors are considered in this garden, so we may be sure, if we look, of finding old-fashioned spice Pinks, Heliotrope, Mignonette and all the rest that bygone generations were wont to put in nosegays.

Passing on a space we glance into the fernery, a wonderful grotto under glass where rare ferns grow by mossy pools with goldfish playing in their depths. Beyond the fernery one path leads to the tea-house, a perfect piece of Japanese handiwork brought from Tokio, perched amid great firs and hemlocks on the brow of a steep hill that frowns down upon the Wissahickon at its rock base; the other path brings us to the boathouse. To fully know Compton and appreciate its varied beauties you must see it from the stream. The hither bank, dark with towering evergreens, at one point rises abruptly from the water with jagged boulders and bare ledges; fat meadows line the farther side and mighty trees throw interlacing branches from shore to shore and cast a grateful shade. In early Spring the ground by the boathouse is carpeted with myriads of bluebottles so intense in color that we perforce avert our eyes. It makes one feel how providential it is that grass is green and the sky blue. Perhaps, however, if the reverse were true we might look heavenward oftener. Not far off is the mouth of the brook that runs through the grounds. It is worth our while to retrace its course to see the Iris beds and the long Rose arbor and, beyond, the Rhododendron thicket.

But to try to chronicle the delights of Compton brings despair. At every turn some new surprise awaits the eye, whether it be a Calabrian oil jar of witching grace or a venerable Etruscan urn or the rare tree or shrub in glorious array of blossoms we have never seen before. Rarely beautiful as Compton is and filled with all manner of wonderful things, its charm is many fold increased by the atmosphere of sincere hospitality that master and mistress are ever careful to maintain. Truly, to use Lord Bacon's words, it is assuredly a place of "refreshment to the spirits of man."

SMALL HOUSES OF STONE AND STUCCO

(*Continued from page 161*)

to their occupants. They show conclusively how much can be accomplished for relatively little money in the way of house-building when intelligent effort is applied to the problem in hand.

The house, costing $7,000 illustrated on page 161 and designed by McIlvaine E. Roberts, architect, Philadelphia, shows a living-room twelve feet by eighteen with a most engaging inglenook built in an alcove apart from this space, a hallway, a dining-room fifteen feet by sixteen, lighted by a bow window that throws a considerable additional space into the room, a kitchen, a pantry and a laundry. The second floor has three bedrooms, a bath and a dressing-room and on the third floor there are three bedrooms and a place provided for a bathroom.

In yet another house—and a particularly attractive one it is—for $6,700 we find on the first floor a living-room extending across the whole front, twenty-four and a half feet by fourteen and a half, a dining-room thirteen and a half by seventeen, a hall, a pantry, a kitchen and a laundry. The second floor has four good bedrooms and a bath and the third floor has a large front bedroom, a hall and a spacious loft, floored but not plastered.

From what has been said it is plain to be seen that everything has been done to make these houses as complete and convenient as possible. Indeed, they have many features

to facilitate housekeeping that some larger and more expensive houses lack. In any of the houses described it would be perfectly possible for an ordinary sized family to live quite comfortably without being at all crowded and yet one or two people with a maid would not feel them too large or in any way lonesome. Any one of them would make an ideal establishment for a spinster, bachelor man or bachelor maid. There would be plenty of room for china, cats and canaries, and still one would not feel afflicted with waste space! However, whether the occupants of these houses be married folk with spouses and children or whether they be not and, like Queen Elizabeth, elect to live their lives in single rather than in double blessedness, one thing is certain: Such houses as those shown in the group here illustrated are so adaptable that people are bound to find them livable, they are so pleasingly devised from the architect's point of view that they are sure to be interesting, they so admirably fill an urgent want that they must needs be appreciated by all who are conversant with present-day conditions of home making, and they are an adornment to any neighborhood however remote from where these stand.

RAISING DUCKS ON THE SMALL PLACE

(*Continued from page 183*)

have a little assistance. This must not be overlooked.

It is not necessary to use incubators and brooders. They are convenient, but either or both may be dispensed with. They are of more value when a lot of young Pekins are to be hatched out and quickly fattened than when breeding ducks or ducks to be raised for egg laying are desired. It may be said, parenthetically, that a number of women and many men are making a tidy bit of money each season by hatching out a few scores or hundreds of Pekin ducks and sending them to market in April and May. Only a little ground and a small investment are needed and the birds may be sent to market alive, if the untidy job of killing and dressing them is not relished. A half-dozen of the strongest and earliest of the ducklings may be selected for the next season's breeders, and the old breeders sold. It is not well to keep breeders more than two years, as the older they are, the later in the season the ducks begin to lay. It will be seen that as soon as the ducklings are disposed of, in the Spring, there remain only a few breeders to be cared for until the next season. A little venture in ducks along this line is often quite worth while, especially when one lives in the country or has a good-sized suburban lot.

But to return to the ducklings. When they are hatched by natural means, it is well to use large, motherly hens, which are able to cover nine or ten eggs with ease. The ducklings will not need to remain with the hen as long as chickens would, and as soon as they are ready to look out for themselves may be placed in little houses in flocks of twenty-five or more. Boxes similar to the one described for laying ducks, except longer, may be used, but should have slatted doors to keep the young birds confined when the weather is stormy and yet give them plenty of ventilation.

The question, "What shall I feed?" usually comes up early. As it happens, there are no hard and fast rules for feeding. On the whole, simple rations are as satisfactory as the complicated ones sometimes formulated. Equal parts of rolled oats and bread crumbs with five per cent of coarse sand may be fed the first week. The addition of a few hard boiled eggs will help to make the mash nutritious. The sand is very necessary, and oatmeal or rolled oats are among the best of feeds for ducks of all ages. Milk or warm water may be used to make the mash.

After the first week, one third wheat bran and one third cornmeal, with five per cent of beef scraps and ten per cent green food in the shape of chopped rye, clover or green corn stalks should be given. The green food need not be mixed with the mash unless desired and the exact quantity does not matter. The mash should be given four times a day for the first two weeks, and after that three times. Care must be taken that the weaker birds get enough; it is often necessary to go the rounds a second time and dole out a little more for them. Grit should be placed in boxes where the young birds can have free access to it. And all feeding and water receptacles must be kept clean. Ducks are not over-neat in their habits.

When the ducklings are to be marketed the proportion of cornmeal should be gradually increased until it is much the larger at the end. Let me say, however, that for your own private table you will do just as well not to fatten the ducks too fast. The birds that run around more and are not forced with fattening food are really better to eat. As a matter of fact, the flesh of the Indian Runner or that of the Rouen is as good as Pekin duck meat; the latter wins in the market on the score of appearance.

The conclusion of the whole subject lies in the statement that Indian Runner ducks may be grown with profit for the eggs which they produce, and will be relished on the owner's private table, that Pekins, being pure white, large and quickly grown, are the favorite and most profitable table breed, and that the Rouens are all-round ducks which have many admirers and are largely bred. A little experiment in duck growing needs small means and may lead to big results.

SOME CHILDREN'S PLATES

By HELEN WARRINGTON

THE child is always pleased to feel that the articles on the table for his use are especially devised for him, and that they are things apart from the objects used by grown-ups, notwithstanding his propensity to imitate his elders and to appropriate to his imitating the things associated with their grown-up living. The group of plates illustrated upon this page and the one following were designed especially for little tots, being decorated with pictorial subjects suggested by the most beloved classic of childhood, *Mother Goose*. In each of these plates the reader will notice that the ornament is placed in the middle of the plate where it is seen to the best advantage, being set off by the plain border of the rim. One of these sets of children's plates, intended for a very young child, presents the pictorial decoration in a little more realistic way, unmistakable as to the story each is intended to remind one of. The ornament upon the other set is more frankly decorative, but with a swing and freedom of line which children can fully appreciate. The meanings are all clear; and the affection towards Pussy or the apprehension of Miss Muffit (with her elab-

A set of children's nursery saucer-plates

Six children's plates, *Mother Goose* series

orate finery) are easily recognized by even the youngest child who has heard the old-time rhymes or has learned to repeat them.

HOW TO DISPOSE OF TABLE REFUSE

By E. I. F.

WITH one having a small home in the country, the disposal of table refuse and other garbage sometimes becomes a problem. If thrown on top of the ground it is sure to attract flies and it cannot be burned in the kitchen range without creating a disagreeable odor. The best plan is to bury it in the garden, where it will contribute considerable fertilizing material to the soil. The writer used a pointed stake to which a piece of board about fifteen inches square is hinged. An excavation is dug and the stake driven into the ground close beside it, so that when the hinged board is at right angles to the stake it will cover the hole, thus keeping out flies and preventing the escape of odors. When the hole has been nearly filled, earth is thrown upon the contents, another hole dug and the stake with its attached cover pulled up and moved to the new location. A cord from the front of the cover to the top of the stake is an added convenience, as the board may then be raised without stooping. If the earth has a tendency to cave at the top of the excavation, four short pieces of board may be made into a frame to fit over the hole, the cover resting upon this frame. If one cares to go to the trouble of making a compost heap a considerable distance from the house, the garbage may be thrown upon it and covered with a little earth, but it is not wasted when disposed of in the garden in the way I have described, and I know of no plan which is more easily carried out.

WHEN THERE IS NO ICE

IT is often difficult to get ice in the country and almost impossible if occupying a camp in the woods. Several plans for keeping food under such conditions have been devised. It is quite possible to install an ice machine, and such machines are found in many expensive country houses, making the owners independent of a natural ice supply. When an ice plant is out of the question, a good plan is to make a dumbwaiter which may be lowered into the cellar, if there be one, or into a well or even into a hole dug in the ground. A shaft may be made of concrete or boards, the former being preferable in case of a permanent arrangement. This shaft should come three or four feet above the floor and be fitted with a drum at the top, upon which to wind a rope or chain attached to the top of the dumbwaiter. A crank is needed to operate the drum and so raise or lower the waiter. It is possible to have a rope run over a pulley and a weight attached to act as a balance, although it is really not needed. There should be a screen door at the top of the shaft for use in ventilation, and it is well to have a screened opening at the opposite side, too. In camp, a temporary device of this sort may be quickly rigged by using an old box for the dumbwaiter. In one camp the dumbwaiter descends into a cistern built under the house and made to collect the rainwater from the roof. There is always enough water in the cistern to keep the food in good condition.

There are iceless refrigerators on the market which will give excellent satisfaction when ice cannot be obtained. One kind is built of metal and has five shelves. It is lowered into the cellar and is operated by a pulley and a crank. Another kind is even more convenient and is especially well suited for use in the permanent country home. Although it drops into the cellar no crank is required, for it rises through the floor at the touch of a button. It may be used in the kitchen or the pantry or even in the dining-room, for nothing shows above the floor when the elevator has been lowered. Dumbwaiters of this kind are made in several patterns, some of them having a small receptacle for ice in case one is able to secure that commodity and wants a little for the compartment containing milk and butter. The rest of the cupboard is designed for use without ice. These iceless refrigerators are so made that they can be installed in any house where there is a cellar, in an old house as well as a new one, and they save a great many steps when it is necessary to keep food in the cellar. They are not expensive, but the idea is so simple that a dumbwaiter which will serve the needs of most families may easily be constructed by any man who is handy with tools.

CONVENIENT WINDOW DEVICE

WHEN old farmhouses are purchased for Summer homes or for permanent occupancy, the new owners are frequently annoyed to find that the windows are not fitted with weights. As a rule, old-fashioned spring catches are used, and they are likely to be broken. The purchaser often determines to install weights, only to find that the studding is so placed that this cannot be done without much work and consequent expense.

The remedy lies in adopting spring balances, which will serve the purpose just as well as weights and which can be fitted to any window. Weight pockets are not required and neither sash nor frame needs to be altered. The weight of the sash is sustained by a coiled steel clock spring attached to the sash with an aluminum tape. The spring is contained in a small metal case, which is screwed to the back of the frame and is out of sight. If the frame is not wide enough to admit a balance at the side, it is screwed to the top of the frame and works practically as well.

These balances are quickly and easily attached, but there is one point which must not be overlooked. The sash must be carefully weighed and a balance ordered which has the proper degree of strength to sustain it. There is considerable variation in the springs in order that any kind of window may be equipped. Two sets of springs, or four in all, are required for one window, but it often happens that the lower sash of a window is the one frequently raised, so that one set of balances will serve. In some old houses it is found that no provision was made for lowering the upper sashes of the windows, anyway.

A NOVEL WAY OF SERVING FRUIT

By MARY H. NORTHEND

THERE are countless ways of serving fruit that add an interest to the "table attractive." On page 190 is shown an illustration of a dish of figs and bananas ingeniously arranged in an appetizing manner. First a number of figs of the best grade are selected, cut in half and hollowed out to form little nests, which should be filled with banana "eggs" made by scooping out pieces of the fruit with a spoon.

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KNOWING HOW TO SERVE THE STRAWBERRIES

STRAWBERRY shortcakes, plain strawberries and cream, and the various frozen desserts in the form of strawberry sherberts and ice cream, too frequently limit the housewife's knowledge of this delicious berry; because it is not considered suitable for pies and puddings in which the fruit is usually cooked. In reality one who really knows how to serve the strawberry, has a seemingly endless list of desserts at hand; only a few of which need be given to suggest others equally pleasing. It is true that the boiled puddings and dumplings and the usual form of pies and pastry, in which the fruit is cooked, are not so appropriate for the strawberries as for the majority of small fruits and berries; but the many desserts in which the berries may be used fresh, leave little to be desired. For the jams, jellies and preserves, the same rules are followed for the strawberries as for the other berries and the cherries; and with the exception of the famous southern boiled pudding, there are few puddings in which this early summer berry may not be deliciously served.

PLAIN STRAWBERRY PUDDING.

One of the simplest of quick desserts is prepared by making a cornstarch pudding, using the yolks of two eggs, and reserving the whites. Bring a pint of milk to a boil, and stir into it two tablespoonfuls of cornstarch mixed smooth and free from lumps in a little cold milk. Let it boil gently until thick and smooth, stirring in half a cup of sugar and flavoring with vanilla. Turn the cornstarch out into a bowl to harden, and when it is cold and firm, turn it into a glass dish for serving; cover the pudding with fine ripe strawberries, covered with powdered sugar, and over the whole spread a meringue made with the whites of the eggs whipped stiff with three tablespoonfuls of powdered sugar.

STRAWBERRY CREAM AND JUNKET

Warm a quart of milk on the back of the range, dissolve one rennet tablet and add to the warm milk, with a tablespoonful of powdered sugar, and a tablespoonful of lemon juice. Pour the junket, while thin, into sherbet glasses, filling them about half full and set in the ice box. When ready to serve, heap fine ripe strawberries on the junket, sweeten well, and cover the berries with whipped cream.

STRAWBERRY PIES

It is difficult to obtain good results by cooking strawberries in pie between upper and lower crusts, as for other berries. Nevertheless, strawberry pies are excellent when properly made. The favorite is the meringue pie. Beat the whites of two eggs to a stiff snow, beat in two cups of powdered sugar, one teaspoonful of lemon juice, and sufficient strawberry juice to color a delicate pink. Line a deep pie plate with puff paste, prick the paste well to keep it from blistering, and bake to a delicate brown. When cold, fill the pastry-lined pie plate with fresh strawberries well sweetened and cover with the meringue.

To make a strawberry custard pie, prepare and bake the puff paste in the same manner and bake a creamy custard in a separate dish. Fill the pie plate with strawberries when the pastry is cold, and pour the custard over the berries while still warm from the oven, and serve when cold and firm. Or a rich custard pie may be made in the usual manner, pouring the custard over the bottom crust before bak-

ing. When the pie is taken from the oven, and before the custard has "set," sprinkle small ripe strawberries over the custard, cover with powdered sugar and serve when cold.

STRAWBERRY SHORT CAKE

The old-fashioned strawberry short cake was made of pastry—rich, flaky puff pastry—baked in square tins. To-day the favorite is the sweet cake, baked in layer cake tins. Both are delicious, and may be used alternately to provide variety during the short but fascinating "strawberry-shortcake season." Whether the pastry or the sweet cake is used, pack the ripe juicy berries closely between the layers and on top. Have "double cream" beaten stiff, coat the sweetened berries generously with the cream, and cover with powdered sugar. For a change, a white of egg meringue may be used for the sweet cake—reserving the whites of two eggs used in making the cake, and the whipped cream will be appropriate for the pastry cake, in which no eggs are used.

STRAWBERRY SHRUB

This is appetizing for immediate use, and may also be bottled to enjoy after the strawberry season is over. Pour three quarts of the best cider vinegar over nine quarts of very ripe strawberries. Let it stand twenty-four hours, then bring to a boil and strain. To every quart of juice add two pounds of granulated sugar. Boil together for five minutes, strain again, placing immediately into the jars or bottles in which it is to be sealed or corked while hot. Two tablespoonfuls of this "shrub" in a glass of ice water will form a delicious drink.

STRAWBERRY BASKETS

An attractive as well as unique dessert may be made with little trouble in the form of strawberry baskets—the baskets being formed of lady fingers and filled with berries and cream. Half a dozen small flaring bowls are always good to have on hand for making individual desserts. They are especially requisite for "basket desserts." Break lady fingers in half and fit snugly on the bottom of each bowl; then arrange closely around the sides of the bowl either half or whole lady fingers, according to the depth of basket required. On opposite sides of the bowl use a whole lady finger, or a double one if necessary to form the basket handle; with a single lady finger laid across from tip to tip to complete the handle. Prepare a rich, firm gelatine; following the directions on the package; and just before it is cool enough to harden, pour it into the baskets, binding all the lady fingers together, and keeping them shapely. When cool and firm, pile big juicy strawberries on the gelatine, heaping the baskets full, and dot the top with whipped cream. When carefully slipped from the bowls—after standing in the icebox until cold and firm—and served on flat glass dishes, the strawberry baskets will be as attractive in appearance as they are delicious to the taste.

STRAWBERRY SANDWICHES AND "TRIFLES."

With a big freezer full of home-made strawberry ice cream, many dainty "trifles" may be quickly prepared for porch teas, lawn luncheons and desserts. Strawberry sandwiches are made by placing a layer of the mashed berries and a layer of the ice cream between flat sweet biscuits. A log cabin "trifle" is made by arranging lady fingers or thin strips of cake, log-cabin fashion, filling the center with the cream. "Nests" of sponge cake filled with cream give variety.

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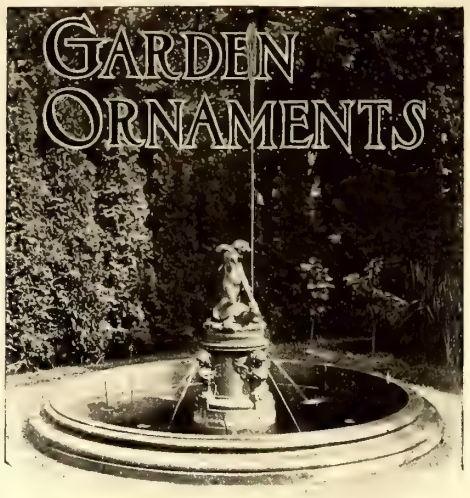

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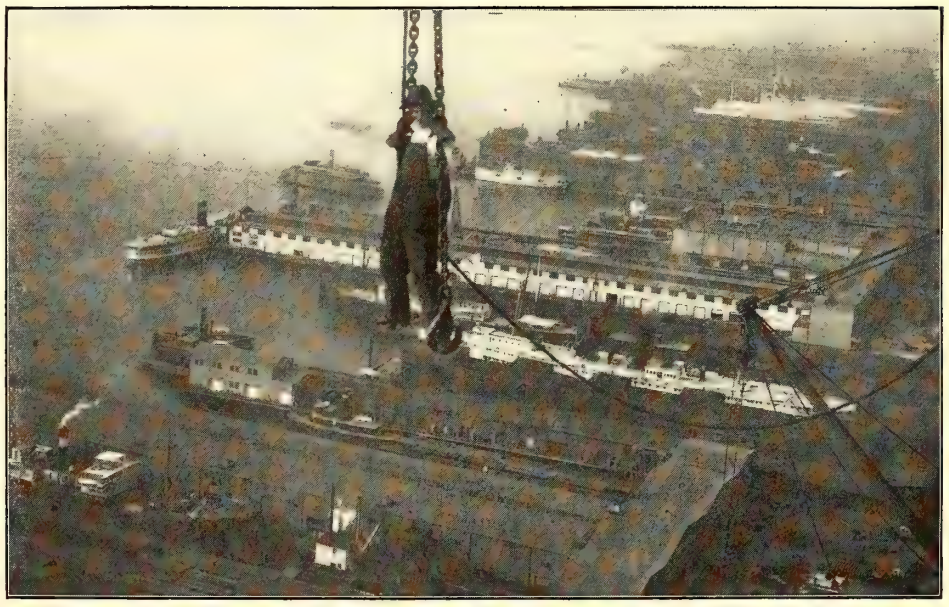

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OLD WOODWORK IN MODERN HOMES

By EDWARD M. THURSTON

ARCHITECTS and builders, a century or more ago, placed the greatest importance upon various minor details which are overlooked or ignored by most modern architects and the arch-enemy, the speculative builder, with whom they are very often in league. Perhaps the very vastness of present-day building operations and the amazing rapidity with which apartment-houses are erected, or with which a tract of suburban land is "plotted" and covered with cottages for sale or rent, precludes the careful planning and designing of such structural accessories as mantels, door and window-frames, stair balusters and newels, and transoms over doors.

The study of detail in connection with these smaller particulars of architecture is just the point wherein the builders of a former period excelled and the woodwork of almost any very old building shows the care and thought which were devoted to what many modern architects are willing should take care of itself. This is particularly true of the old residences at Salem, Deerfield, Annapolis and elsewhere, for while much of this woodwork was produced by carpenters or shipbuilders, who, it would seem, had very little architectural training, their careful study of the designing of Wren, Gibbon and the Adam brothers produced results of surprising excellence. The older cities and towns of America yet contain much of their work, notwithstanding the continual pulling down and building up which is one of the characteristics of this restless and progressive age. Vast quantities of old work have been destroyed, however, before the constant march of improvement, and with the removal of old buildings often comes an opportunity for the discriminating architect or decorator, or for the home-builder, to secure for almost nothing woodwork which may be and frequently is built into new homes elsewhere. In every large city there are second-hand lumber yards into which is carted material from old buildings. The brick is cleaned or stripped of mortar and sold for the filling in of new outer walls or for the building of thin interior partitions which must be of fireproof material. The flooring and heavier timbers are often used again, and much of the interior woodwork is in such condition that it is merely refinished and placed in new buildings.

A visit to one of these old junk yards might be of interest to the man or woman who is building a new home or remodeling one already built, or to any one who has the "collector's instinct," which is apt to lead him into the most unpromising fields. One of these lumber yards is in a dreary part of lower New York, not far from the East River. Here has been brought much débris from old houses which have been dismantled, and strewn around may be found a bewildering assortment of old mantels of wood or marble beautifully carved, whole entrance doorways with carefully designed columns and pilasters, fanlights or side panels of leaded glass, and even the iron rails and wrought-iron newels which were often placed at the entrances to New York houses a century ago. Here, too, may be found an endless variety of interior woodwork, door and window trim faultlessly carved, heavy paneled

doors of old mahogany, the tall fluted columns with Ionic or Corinthian capitals which were often placed between drawing-rooms, and corner cupboards which must have come from very old houses of the Dutch period. With this assortment of woodwork is a wonderful variety of old gas fixtures, sidelights and chandeliers, hung with cutglass prisms, wrought iron hinges, doorknobs of brass, glass or even of silver, all amid the chaos and confusion of a second-hand lumber yard. What stories these old objects might tell had they the power of speech!

In many parts of lower New York are old houses which have not as yet been dismantled, but which are already doomed for speedy destruction to make way for structures of another nature. Not far from Madison Square there is a plain, old-fashioned brick residence whose dingy, unadorned exterior gives no hint of the beauty of the woodwork within, but beyond the entrance door is some of the most carefully studied work ever placed in a New York house, and a man who knows and values its beauty is waiting and watching for the day when the old house shall be invaded by the wreckers and its mantels and doorways carted away to the junk yard near the East River. Another old home, in lower Second Avenue, is also destined for removal, to give way to a manufacturing building. This particular house was for many years the home of a very prominent family and was built during the days of the last century when Second Avenue was a center of fashion. Interior finishings of particular interest are here, for most of the rooms are fitted with mantels, many being of wood of "Colonial" patterns, although several are of old marble carved in the very simple, graceful manner of the "American Empire" period.

To the south, east and west of Washington Square, in New York, are many old houses which were once the homes of fashion, which has long ago migrated into other quarters. These old houses are in all stages of dilapidation, and many of them have become "sweat shops" or the factories of dealers in feathers or artificial flowers. In some of them, however, there are still old mantels and woodwork which have managed to remain in place during all the changes and vicissitudes which have come to the localities where they are placed, and these old treasures are sometimes discovered in most unexpected ways. Not long ago a woman who is a worker for one of the organized charities visited a certain factory to investigate conditions of which complaint had been made. The workrooms occupied an old city residence not far from Bleecker Street, and she entered the building through a wide doorway where old iron "floriated" newels were still in place and where a fanlight and side panels of leaded glass still lighted the deep wainscoted vestibule within. The drawing-rooms had been made into a small factory, where scores of Italian children were making artificial flowers and leaves, and framing in the pictures were old mantels of delicately carved Carrara marble, window and door frames of exquisitely graceful design and tall, fluted white columns and pilasters which divided the two long rooms.

But many of these old fittings are rescued from junk yards or from buildings which have fallen into decay, and rather recently one fine old entrance doorway with all its appointments was removed from an old house not far from Chatham

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Square and built into a beautiful Georgian residence not far from upper Fifth Avenue, where its grace of line and fine workmanship are in thorough accord with its new surroundings. A great architect who planned and built many of the most costly residences in and around New York used great quantities of building material which he selected from the old lumber yards of Boston, Philadelphia and New York, on account of the great beauty and accurate proportions of its designs. Many of the sumptuous city residences which he so cleverly planned and decorated are adorned with pilasters and columns removed from dilapidated old houses and refinished, colored and gilded to fit into his highly decorative interiors. One particularly beautiful country house which he built is fitted with old woodwork in the form of mantels and solid mahogany doors, and an old entrance doorway of most beautiful design, with a fanlight of leaded glass, opens from a studio upon a broad walk of brick which leads among the old-fashioned flower beds of a formal garden.

Another interesting use of old woodwork is in a room in the home of a New York physician. The mantel and window frames are of very simple patterns and wainscoting has been made of old paneled shutters such as were used in very early days when New Amsterdam was still a copy, more or less faithful, of an older Amsterdam beyond the sea. This ancient woodwork is painted a very deep cream, walls are of buff and much old white and blue Delft is used in tiles about the fireplace, tobacco jars upon the mantel shelf and in numerous old plates, platters and other dishes which fill various corner cupboards.

One of the most interesting structures at one of our great expositions was a State building which was a reproduction of an old home of some historic interest in a city of that State. As the original building had recently been dismantled, it was possible to use most of the fine woodwork in this copy, and the old Colonial mantels and trimmings of windows and doors had been refinished and placed in what was practically their old setting, where they had the advantage of being surrounded by furniture and household decorations of the same era, all arranged with infinite taste and care. It is said that after the close of the exposition all of this old woodwork was purchased by an architect and placed once more in a new residence, where, let us hope, it may remain forever.

The older cities and towns are full of this early American work, and as in even the most conservative places the old must give way to the new, opportunities for acquiring such treasures are often presented to the home-builder who is observing as well as discriminating. Much of this old work, of course, is not worth preserving, for then, as now, designing was of varying degrees of excellence, but many of the craftsmen of that day were skillful designers as well as clever workmen.

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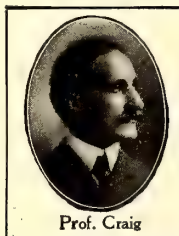

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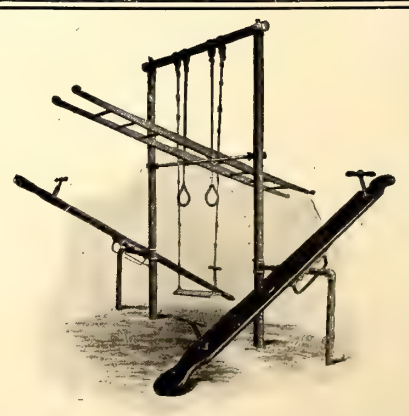

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TIMBER cut in Spring and in Summer is not so desirable as that cut in Winter, when the life processes of trees are less active. Scientific investigations sustain this statement. The durability depends not only upon the greater or less density, but also upon the presence of certain chemical constituents in the wood. Thus a large proportion of resinous matter increases the durability, while the presence of easily soluble carbohydrates diminishes it considerably. During the growing season the wood of trees contains sulphuric acid and potassium, both of which are solvents of carbohydrates, starch, resins and gums; they are known to soften also the ligneous tissue to a consirable degree. During the Summer months the wood of living trees contains eight times as much sulphuric acid and five times as much potassium as it does during the Winter months. The presence of these two chemical substances during the growing season constitutes the chief factor in dissolving the natural preservatives within the wood and in preparing the wood for the different kinds of wood-destroying fungi, such as *Polyporus* and *Agaricus*. The fungi can thus penetrate more quickly and easily into the interior of the wood when these wood gums are already partly dissolved and available for their own immediate use. From this standpoint it seems that the best time to cut down the tree is in the Winter when sulphuric acid and potassium are present to a much smaller degree, and the fungi will not be assisted in dissolving the natural preservatives in the wood. The amount of wood gum is always less and more easily soluble in sapwood than in heartwood, and for this reason the former is usually regarded worthless for industrial purposes.

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NEEDLES are articles of such common use and of such small dimensions that one hardly expects to find them present any features of artistic or personal interest. Yet there are one or two instances of this kind on record. Queen Victoria possessed a needle, the stem of which was covered with beautiful designs representing incidents in the life of her late majesty. So small and intricate was the pattern that it could be seen only by the aid of a magnifying glass. Moreover, the needle was hollow and within it was placed another still smaller needle.

The German Emperor, William I., grandfather of the present occupant of the throne, also possessed a very remarkable needle. The story of the circumstances is as follows: In 1883 the Emperor visited a large needle factory in Kreuznach, and one of the workmen, whose task it was to bore the eye of the needles, requested the Emperor to give him one of his white hairs. The Kaiser complied with the request in some astonishment, and was still more surprised when he saw the deft workman bore a hole through the hair, draw a fine thread through the eye, and hand the threaded needle back to the venerable monarch, who kept it as one of the most interesting souvenirs of his long and varied life.

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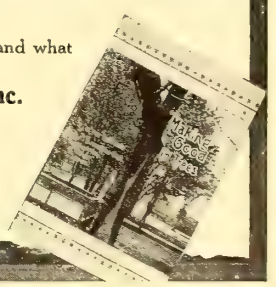

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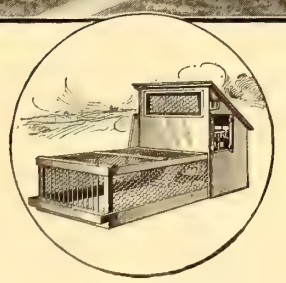

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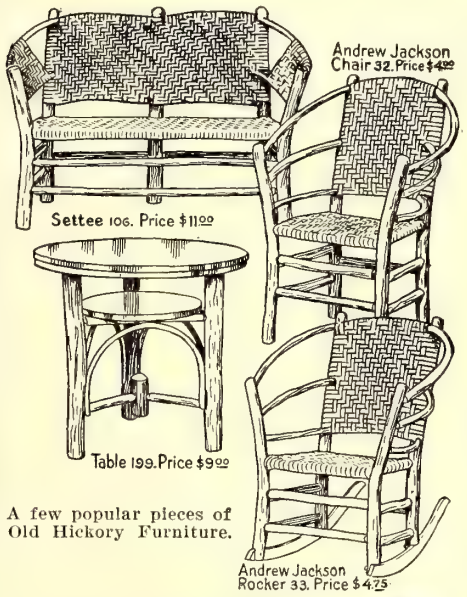

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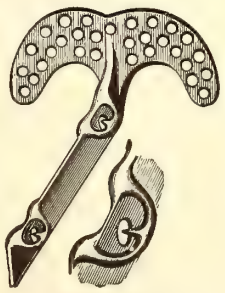

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NEW BOOKS

ORPHEUS: A General History of Religions. By Dr. Salomon Reinach. New York: G. P. Putnam's Sons. Cloth, 8vo.; 439 pp. Price, $3.00 net.

This volume is a history of the important religions of the world. The author, one of the most famous of modern French savants, sees in religions the infinite curious products of man's imagination and of man's reason in its infancy; it is as such that they claim his attention. He believes that in religion as in other domains secular reason must exercise its rights. The author has tried not to wound any conscience, but he has said what he believes to be the truth with an emphasis proper to the truth from his point of view. As the work of a true scholar Dr. Reinach's volume is free from any suggestion of sensationalism, and the translator, Florence Simmonds, has rendered it from the French with great care and clearness. The title of this book was suggested by the fact that as well as being the "first singer" of Hellas, Orpheus was also, to the ancients, the theologian par excellence, founder of those mysteries which ensured the salvation of mankind, and no less essential to it as interpreter of the gods.

THE POST IMPRESSIONISTS. By C. Lewis Hind. New York: George H. Doran Company. 8vo. Illustrated. 94 pages. Price, $2.50 net.

In thirteen chapters Mr. Lewis Hind develops his idea of Post-Impressionism, the movement in art which has recently come into such prominence. Mr. Hind submits that expression, not beauty, is the aim of art; that he who expresses his emotion rhythmically, decoratively seeking the inner meaning of things, is artist; and that he who represents the mere external is illustrator. The founders of Post-Impressionism, Cézanne, Van Gogh and Gauguin, dominate this book, which rambles vivaciously over the movement, and describes the effect of Post-Impressionism upon the author and upon England. To anyone interested on the relation of art to the development of contemporary culture, this well written and well illustrated volume will prove of deep interest.

PRINCIPLES AND PRACTICE OF POULTRY CULTURE. By John H. Robinson. Boston: Ginn & Co. $2.50.

This is by far the most complete presentation of poultry husbandry which we have seen. While its primary purpose is to serve as a textbook for agricultural college students, it meets all the requirements of a general treatise. Mr. Robinson has for many years been the editor of a poultry journal, and his editorial instinct has stood him in good stead in the preparation of this volume, which is as worthy of commendation for the things excluded as for the facts included. The novice will find by experience that indiscriminate reading of poultry literature is a hindrance oftener than a help, for the fictions of poultry culture are mostly plausible, and generally more alluring than the facts, and the usual result of much reading in advance of a thorough grounding in principles is an accumulation of obsolete and impracticable ideas.

The book is well printed, and carries nearly 600 illustrations, some of which are very useful adjuncts to the text.

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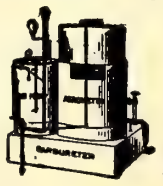

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THE MODERN RAILROAD. By Edward Hungerford. Chicago: A. C. McClurg & Co., 1911. 12mo.; 476 pp. Price, $1.75.

To bring to the lay mind some slight idea of the intricacy and involved detail of railroad operation is the purpose of the present volume. Many of the author's articles have appeared in well-known magazines. He has performed an exceedingly difficult task in a very creditable manner. There is not a single phase of the subject which is not adequately treated. The building of a railroad is described in detail, with reference to tunnels, bridges, passenger stations, freight terminals and yards, locomotives and cars; then come chapters devoted to the railroad and its president, the legal and financial departments, the general manager, the superintendent, operation of the railroad, keeping the line open, the general passenger agent and his office, the luxury of modern railroad travel, getting the city out into the country, freight traffic, the drama of the freight-making traffic, the express service, the railroad mail, the mechanical departments of railroad routine, the coming of electricity, and lastly, an exceedingly interesting appendix, dealing with efficiency through organization. It is a very well made book, being nicely printed on lightweight paper, with detached illustrations.

BOOK OF HISTORY (SHU-KING) OF CONFUCIUS. Rendered and compiled by W. Gorn Old, M.R.A.S. New York: E. P. Dutton & Co. Cloth; 12mo.; 67 pages. Price, 40 cents net.

This little book was designed by its translator and compiler to convey to the English-speaking reader a familiar view of the men who made Chinese history during the earlier age of the yellow empire. Upwards of twenty-five centuries before the dawn of light of Christianity and civilization in Britain and nearly twenty centuries before the founding of the city of Rome, China was possessed of a civil and criminal code, statute laws, nine departmental ministers of state under the emperor, extensive home industries, a large import and export trade, a systematized canal and river service, a standing army, an extensive agriculture, local governments and tributary taxation, and schools of literature, art, science, and music under the patronage and protection of hereditary dukes, earls, marquises and barons.

WOMEN AND WISDOM OF JAPAN. Introduction by Shingoro Takaishi. New York: E. P. Dutton & Co. Cloth; 16mo.; 64 pages. Price, 40 cents net.

It may be said that the entire moral teaching of Japan rests on the corner-stone of the spirit of unselfishness. Kaibara Ekken, one of Japan's most famous moralists, greatest scholars, deeply learned likewise in Chinese ethics, wrote the "Onna Daigaku," or (translated) "The Greater Learning for Women." It is from this text that the contents of "Women and Wisdom of Japan" is translated. The well-known *Bushido* was the most salient feature in the Japanese morality, and one might translate it as the "Greater Learning for Men." Here, then, in "Women and Wisdom of Japan," we have in the doctrine of "Onna Daigaku" merely a different form of the Bushido spirit, but directed towards an ethical system for the Japanese woman. The reader interested in Eastern culture will find the sixty-four pages of this book well worth careful study for acquiring a fuller knowledge and understanding of Japanese manners and morals, past and present.

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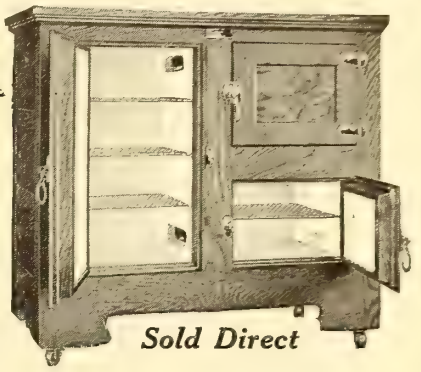

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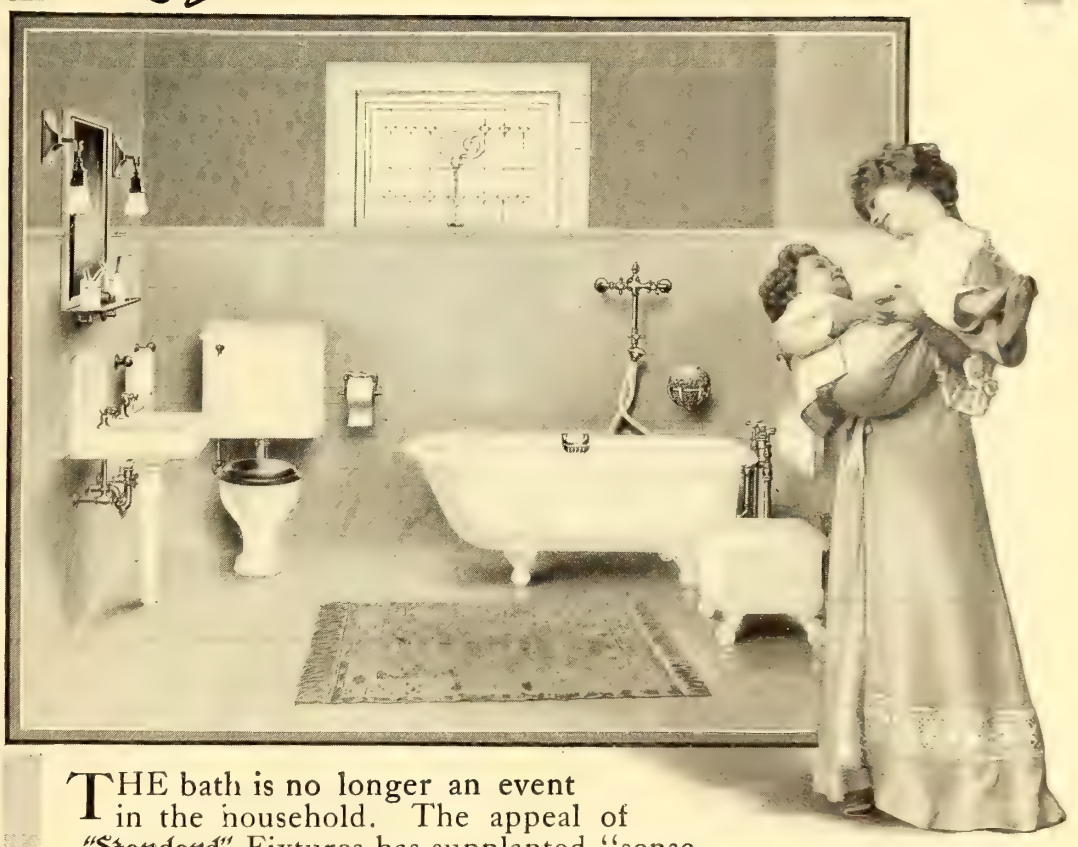

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THE MEDIÆVAL MIND. By Henry Osborn Taylor. New York: The Macmillan Company. Cloth. 8vo. 2 vols. Price, $5 net.

It is safe to say that in *The Mediæval Mind* its author, Henry Osborn Taylor, will open up to many new paths across the fertile fields of culture. No greater incentive for vital study of the past has appeared in the form of printed pages for several decades than we find in Mr. Taylor's volume. Especially in America have we been neglectful of cultural history, this being true of many of our large institutions of learning, though the universities of Wisconsin, Illinois, Missouri, and Columbia University —perhaps one or two others—have special courses in the history of European culture now open to students. Mr. Taylor advances pronounced views on the object of exact influences and channels of development, and it is possible that some critics will insist that his interpretation is too unswerving in its assumptions. Perhaps others will feel that Mr. Taylor might have given more space and attention to the vernacular aspects of mediæval culture in his study of its Latin influences. Nevertheless, the writer's erudition, scholarship and understanding of developmental forces command the respect and admiration of everyone, scholar, student and lay-reader alike; and he has succeeded in his difficult and self-appointed task of following through the Middle Ages the development of intellectual energy and the growth of emotion.

THE MATERIALS OF THE PAINTER'S CRAFT. By A. P. Laurie. Philadelphia: J. B. Lippincott Co., 1911. Cloth crown 8vo.; Illustrated. 444 pp. $2.00 net.

While many valuable and learned treatises dealing with the materials of the painter's craft in past ages are to be found both in English and in foreign tongues, it has remained for Mr. Laurie to bring together in easily accessible form within a reasonable compass the information of this sort heretofore scattered through many volumes. The author of The Materials of the Painter's Craft is an authority on the technique of painting and pigments both in ancient and in modern practice and this volume will find a hearty reception among students of the history of the craft of painting.

THEIR DAY IN COURT. By Percival Pollard. New York: The Neale Publishing Co. Cloth, 8vo; 486 pages. Price, $3.00 net.

The recent loss to the literary world occasioned by the death of Mr. Percival Pollard a few months ago should be noted here in connection with *Their Day in Court,* one of his most entertaining books wherein the author surveys American literature, and European literatures incidentally, of the last ten years. "The case of pure literature in America," to quote, "is comparable to the case of My Lady Parvenu's grand rout; crowded and worthless. Quality is utterly sacrificed for quantity. The rout comprises everybody, which to the discriminating spells Nobody . . . Find for me, if you can, any tendency in our letters save the commercial! Show me any goal save the dollar! . . . It is impossible, we have been told, to indict a nation. The impossible, then, the indictment of all those responsible for the fatal prosperity of letters among us, I will not attempt. Yet to accuse, by chapter and verse, the two classes most directly responsible, this book is written. Those classes are: firstly, the Ladies; secondly, the Critics."

WHAT ENGLAND CAN TEACH US ABOUT GARDENING. By Wilhelm Miller, Ph.D. Garden City, New York: Doubleday, Page & Co., 1911. Cloth; quarto; illustrated with 112 plates and eight plates in color; 18+359 pages. Price, $4.00 net.

The book written by Wilhelm Miller bearing the title, "What England Can Teach Us About Gardening," is a comparative treatment of a subject which the author's experience here and research abroad fits him fully for the task. In every way the contribution is a filippic to those seeking knowledge of English gardens and the methods of improving our own. The objects of the book are too important, their presentation too ably sustained to warrant much notice of the author's somewhat nimble use of slang and his severe strictures on those writers who gush in garden literature. When this author does not care, he writes of "a plant that fails to do the job." When writing in a fine strain, although he hints it is his reluctance, he repents and tells of "lace leaf and such deathless forms of beauty"; of "miniature isles of bloom that are perfect little poems"; of "the splendor of precious English Holly and Ivy that sinks into his soul." Truly a range of expressions that shows he can be both loose and pretty in style, while capable of the sober work he has done as an editor of the complete and massive volume of Bailey's Cyclopedia of American Horticulture. The sections of the present large volume are here epitomized so as to represent the numerous chapters of Part I as: "Noble and ignoble ideas in landscape, formal, wild, water, rock, wall, peat, rose and indoor gardening; also hardy borders, collecting, making new varieties; and garden cities." Part II as: "How we waste millions on materials we could never buy and on effects we cannot imitate; what the best English effects are and how we can reproduce the spirit of them with long-life material; and how we can contribute something toward that supreme goal. An American type of gardening." In the twenty-six chapters and the appendix the treatment is admirable for its devotion to the subjects. He stays with the garden wall until it is covered with vines; with the pool until its water-lilies span fully nine inches across their leaves; and just as he finds that a certain moss has a "genius" for filling every crevice, has he the same faculty for filling every chink in the science of rock gardening, and the rest. A subtle touch of climate helps to make England the most exquisite garden in the world. The lack of this ingredient puts somewhat into shade the horticultural achievements of our land. In lieu of it we can materially improve by falling heir to the garden sense of a book which is full of the promise of a primrose future if we will stop imitating and use what is at hand for creating more and better gardens. To understand the right or the wrong way, to find the relations of form or schemes of color, in gardening, the reader is always referred to the numerous plates that illustrate the text. So that if we cannot have all of the reticence and the delight of England in our gardens we can get much of it in these illustrations. The material for illustrations supplies nothing that can be called a makeshift of book embellishment, and the objects and scenes presented are a tribute to the sifting acumen of an expert's selections in a work which is one of the best that have been written and pictured about England's flowerbeds and evergreen foliage, her wildflower, hedge and woodland glories, the lovely threading of her streams around, the incomparable nestling of her cottages, among such as these.

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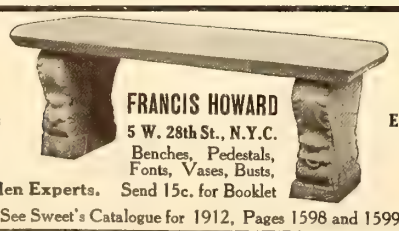

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See Sweet's Catalogue for 1912, Pages 1598 and 1599

JAPANESE PAINTING. By Henry P. Bowie. San Francisco: Paul Elder & Co. Cloth 8vo.; Illustrated. 117 pp. Price, $3.50 net.

Mr. Henry P. Bowie's work on Japanese Art is probably the only one of its kind from the pen of a foreigner whom, in addition to the study of Japanese method, has also mastered their practical application. Mr. Bowie lived for many years in Japan, studying under the most celebrated Japanese masters, and obtained artistic distinction among Japanese painters, contributed to their galleries, and won the commendation of the Emperor, who accepted some examples of his work. Evidently there could be no safer guide for those who covet familiarity with a form of art that is immeasurably ancient and that has lost none of its power to please.

We have here a remarkable book, a book that not only illuminates the distinctively Japanese art, but that cannot fail to be of practical value to Western students of all grades, whether they wish to acquire Japanese methods or not. It is safe to say that the information given in its pages cannot be secured from any other work in any language. Mr. Bowie has the useful faculty of summarizing his material without depriving it of its technical and practical value.

A special word of praise should be given to the illustrations and explanatory plates. They do actually illustrate and explain. Many of them are by great Japanese artists and are of striking pictorial value. All of them are carefully selected and well reproduced. The student will find the explantory plates of great practical value. They are divided into groups demonstrating the various laws of Japanese technique as, for instance, the eight ways of painting in color, the eight laws of ledges, the twelve laws of dots for painting near or distant trees and shrubs, the laws for painting waves and moving waters, etc. The text, also, has been prepared with the utmost care. For example, Japanese art terms and other words deemed important have been retained and translated; all those of Chinese origin being printed in small capitals, while those of Japanese origin are in italics. In fact, the work is indispensable to any serious student of Japanese art.

THE RENAISSANCE IN ITALY, FRANCE AND ENGLAND. Vol. 3. History of Architectural Development. By F. M. Simpson. New York: Longmans, Green & Co., 1912. Cloth 8vo.; Illustrated. 359 pp. Price, $6 net.

The history of the Renaissance of architecture in Italy, France and England is an interesting story, and although it has been told by many authorities many times, Professor Simpson has proved in the present volume the worth of its retelling in his clear, comprehensive and interesting way. The volume, apparently intended primarily for the use of actual practitioners of architecture (though thoroughly interesting at the same time to the layman), contains an abundance of technical illustration of great worth. Here and there in Professor Simpson's text one finds a point to quarrel with, as where he remarks that "The revival, in literature preceded what is known as the Renaissance in Architecture, but it is a mistake to say that it occasioned it." But from very few uncritical and unscholarly lapses of this sort Professor Simpson frees himself in the main, and the reader, professional architect or student will gain a truer conception of the development of modern architecture from having the good fortune to study its pages.

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CONFUSION OF NAMES OF COMMERCIAL WOODS

NO branch of forestry requires the investigation of men of science more than the history and structural characters of the commercial timber trees. It is lamentable to see so many talented men devote their entire lives to the study of small groups of relatively unimportant plants of the desert or the ocean, while we are still ignorant even of the botanical names of a good many trees yielding timber of commerce. A number of the trees of West Africa, which produce a large percentage of the choicest timber used in England and in the United States for furniture and high-grade cabinet work, are now known in the trade by no other name except mahogany, when in reality they do not belong to the mahogany family at all. Coccobola from Central America has been imported into this country for over a hundred years, but today no one seems to know what tree yields this wood. A number of examples of this kind could be cited in regard to important timbers which come from the tropics.

This lack of knowledge is the chief reason why so many different woods which bear the slightest resemblance have been given the same common or trade name. For instance, there are now more than fifty different woods sold under the comprehensive trade name mahogany; there are more than twenty-five referred to under the name cedar; there are more than a dozen rosewoods; equally as many satin woods, iron woods, and box woods, not to mention a number of beef woods, ebony woods, sandal woods, teak woods, gum woods, walnuts, and a host of others, named according to the fancy of the shippers and importers. The duplication of names has become so complicated that dealers are now unable to know what kind of mahogany, cedar, walnut, or gum to supply when their customers order goods by these names.

Timber constitutes a very important product of the foreign commerce of this country. To many the number of different kinds of woods imported will be a matter of great surprise, but numerous as they are now they are few compared with those which will be introduced into the American markets when the forest resources of Africa and South America become more generally available. Not a month passes but what some importer adds another mahogany, cedar, or rosewood to the long list of substitutes. Public attention and the investigation of scientific men are being gradually directed to this branch of work, and it is hoped that something can be accomplished which will prove helpful in protecting the purchasers from getting the spurious kinds when genuine woods are specified.

HENS THAT TELEPHONED

TO catch an animal that had been killing his hens, a Winsted, Connecticut, poultry raiser, who had a pen of hens taking part in the international egg-laying contest at the State Agricultural College, had a telephone installed in his henhouse. The wire ran to his bedroom, where the receiver was fastened to a bedpost, close to his pillow. The receiver on the other end was also off the hook, thus permitting any sound in the hennery to travel to the owner's sleeping-room.

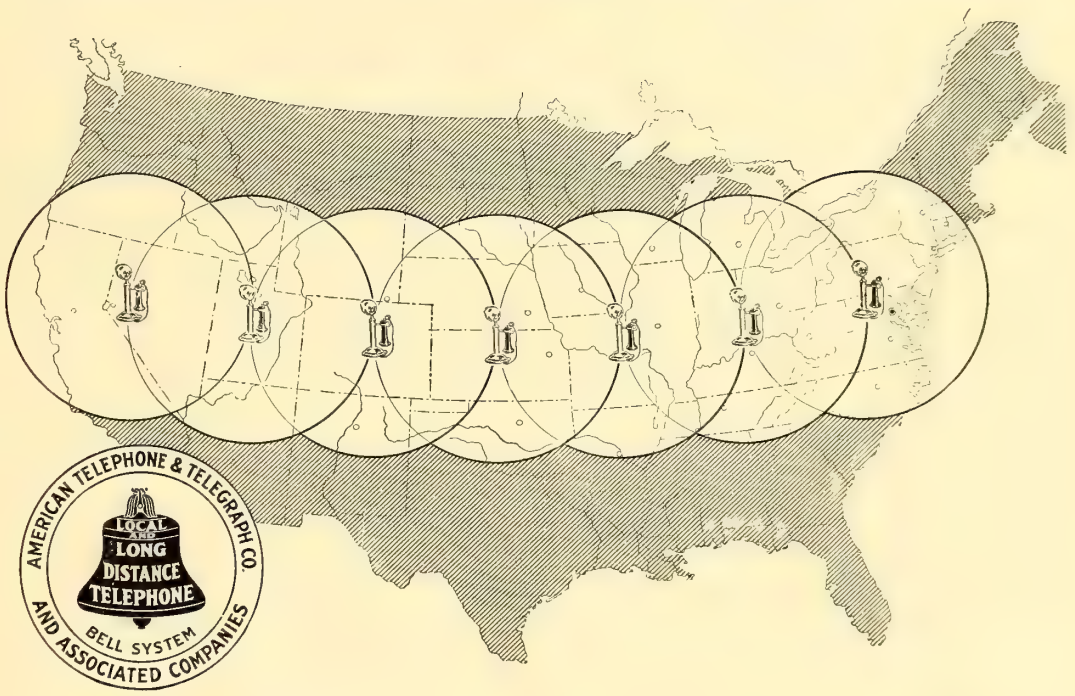
About daybreak the poultry raiser was awakened by the shrill cackling of his hens coming over the wire. Dressing himself hurriedly, he grabbed a gun and started for the henhouse, where he shot and killed the thief, a mink.

The Greatest China Factory In the World

Not in England, or France, or Germany, but at Newell, West Virginia, U. S. A., is located the pottery of The Homer Laughlin China Co., the largest in the world. To make the 45,000,000 pieces of Homer Laughlin China annually produced, requires the work of 1,800 people; 15 acres of floor space is necessary; and for decorating, $60,000 worth of gold alone is used annually. These figures indicate the popularity of Homer Laughlin China.

In addition to its beauty and refinement of design and decoration, Homer Laughlin China gives splendid service. It is ***"as good as it looks."*** In buying see that the trade-mark name "Homer Laughlin" appears on the under side of each piece of sufficient size.

The Homer Laughlin China Co.,
Newell, West Virginia



The Chain of Communication

EACH Bell Telephone is the center of the system. This system may be any size or any shape, with lines radiating from any subscriber's telephone, like the spokes of a wheel, to the limits of the subscriber's requirements, whether ten miles or a thousand.

Somewhere on the edge of this subscriber's radius is another who requires a radius of lines stretching still further away. On the edge of this second subscriber's radius is still a third, whose requirements mean a further extension of the lines, and so on.

This endless chain of systems may be illustrated by a series of overlapping circles. Each additional subscriber becomes a new center with an extended radius of communication, reaching other subscribers.

However small the radius, the step-by-step extension from neighbor to neighbor must continue across the continent without a stopping place, until the requirements of every individual have been met.

There can be no limit to the extension of telephone lines until the whole country is covered. There can be no limit to the system of which each Bell telephone is the center, up to the greatest distance that talk can be carried.

Because these are the fundamental needs of a nation of telephone users, the Bell System must provide universal service.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

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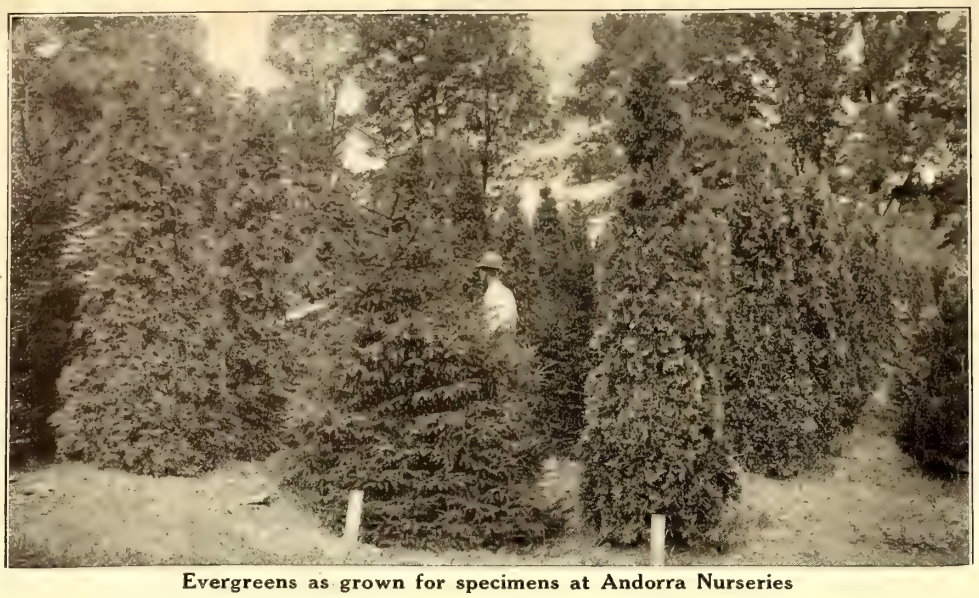

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We make special Vacuum Cleaners, either Stationary or Portable, for **Country Homes,** to operate from Gasoline Engine.

Send blue prints for **layout of vacuum piping.** Send for printed matter. Buy direct from the manufacturer and save money.

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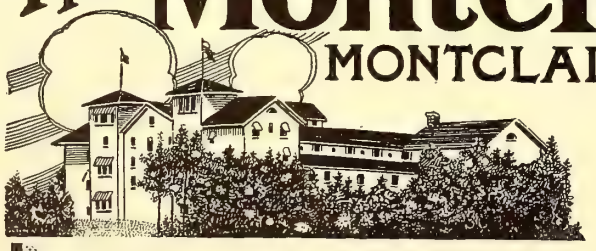
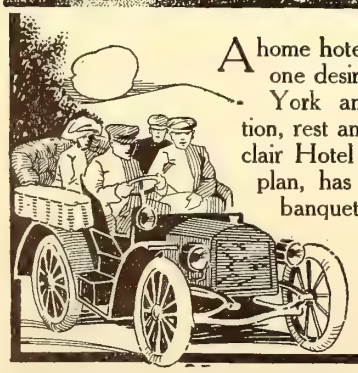
The Montclair

MONTCLAIR, N. J.





A home hotel for the family, the business man and any one desiring a residence within an hour from New York and enjoy the delights of country elevation, rest and environments. This is what the Montclair Hotel offers. It is operated on the American plan, has grillroom with facilities for private parties, banquets, dances under the direction of T. Edmund Krumbholz of the Kirkwood, Camden, S. C. and the Sagamore, on Lake George. **Mr. R. C. Millard, Resident Manager, will reply to all inquiries and call upon request.**

TRAIL-BLAZING FOR THE GARDEN

By HAROLD D. EBERLEIN

THERE is a man, a very sensible man, who makes a point every year of trying to grow two or three strange, new plants he has never heard of before. He goes carefully over all the garden catalogues and notes any brand new importation that is announced. When he fills out his order sheet for the seedsman he always puts down several of the newcomers on principle. Sometimes he gets pleasant surprises, sometimes disappointments, but always an increasing store of valuable experience. He has the right spirit.

We are all creatures of habit. In our hearts we all acknowledge the truth of this though we may be loath to admit it in our own particular case. And, now and again, we are creatures of habit much to our cost. In no respect is this truer than in our selecting of plants, trees and shrubs for our gardens. How many of us, pray, when the time comes for us to make out *our* Spring or Fall garden lists, will be daring enough to venture in a new path? Will we not rather let ourselves fall into a narrow groove and stick there, content to order the same things year after year, mistrustful, perhaps, of branching out into new lines? We ought, on the contrary, to cultivate the spirit of botanical experimentation. We doubtless should if we but realized how much pleasure and satisfaction we deprive ourselves of by not doing so. There are scores of plants native to China, Japan, parts of India, South America and other portions of the globe, plants about which we know nothing or next to nothing, all of them desirable and suited also to our climate. The same may be said of vegetables and fruits. There are plenty of them we could grow to our great satisfaction. For this unprogressive state of affairs the cause seems to be twofold. It is partly our own fault because we do not generally seek out and order the new and unusual things and give them at least a trial, and it is partly the fault of the seedsman and nurserymen because they frequently do not keep up the variety of their stock. It must be said, however, in their defense, that when the demand in certain directions is so small that it yields no profit they cannot be blamed, from a business point of view, for dropping the unprofitable branch and keeping only what there is a steady call for. Some nurserymen, indeed, are making an effort from year to year to introduce new plants and forign varieties of those we know, but they would do infinitely more if they received sufficient encouragement from a large number of their patrons.

Now is the most fitting time to branch out and try some horticultural experiments. Why not order a few of the most unusual things we find listed or can in any way hear of? Perhaps they may turn out well and become our staunch friends in the garden and then again perhaps they may not. But what matter?

OLD CEDAR WOOD FOR LEAD PENCILS

IT is not generally known that pencil manufacturers are keen upon obtaining supplies of old cedar rails, boards, posts, etc., that have undergone years of weathering. As new cedar carries a large amount of resinous matter which it is difficult and expensive to eliminate, the old wood is far superior for use in making lead pencils, as any resinous matter remaining in cedar tends to warp the pencils and to ooze out, thus ultimately marring the appearance of the finished product.

What Do You Demand In a Water Supply System

Is it a high, strong pressure that you desire? Is it efficiency—compactness—simplicity of operation that you want? All are important. Will you get them in the outfit you select? Make certain of it. Install a

DOUGLAS PNEUTANK SYSTEM

It offers you a complete water service piped throughout the house or any part of the grounds. It gives you live, gushing water wherever and whenever you want it. It makes you independent of wind, weather or insufficient town water works.

The outfit shown here consists of an air-tight steel tank, and a standard gasoline engine direct-connected to a very efficient pump. This outfit will deliver up to 600 gallons of water an hour. The pressure is as high as needed in the average suburban home.

Douglas PNEUTANK Systems are absolutely reliable and thoroughly durable. Other systems may be cheaper in first cost. They are much dearer in the long run. We will replace any part of the Douglas outfit found defective within five years of installation.

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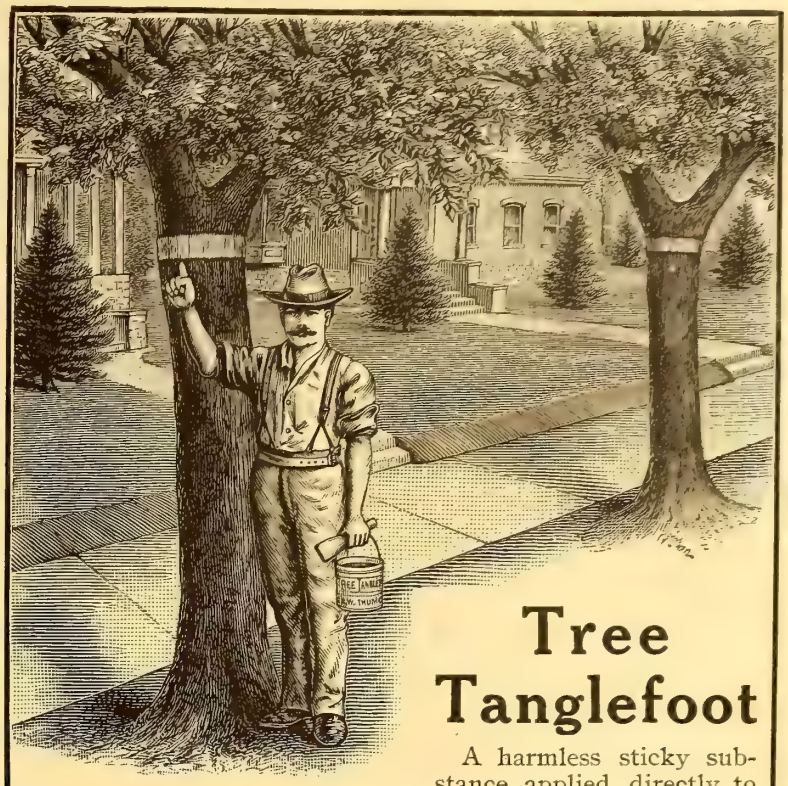
Manufacturers of spray pumps, deep-well pumps, hand force pumps, Forest-fire-fighting outfits, etc.



Tree Tanglefoot

A harmless sticky substance applied directly to tree trunks. Remains effective, rain or shine, three months and longer, fully exposed to weather. One pound makes about 9 lineal feet of band. No apparatus required, easily applied with wooden paddle. Especially recommended against gypsy, brown-tail and tussock moth caterpillars, bag worms, canker worms and climbing cut worms, but equally effective against any climbing pest. Tree Tanglefoot needs no mixing. It is always ready for use. Do not wait until you see the insects. Band your trees early and get best results.

Price: 1-lb. cans, 30c.; 3-lb. cans, 85c; 10-lb. cans, $2.65; 20-lb cans, $4.80. For sale by all reliable seed houses.

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A complete plant consists of a small gasoline engine, dynamo, a simple switchboard and a storage battery called

The "Chloride Accumulator"

This battery is the same type as is used in the large municipal lighting stations, by the electric railways and United States Government. The use of this battery totally obviates the necessity of running an engine at night as a few hours operation of the engine and dynamo occasionally will store the "Chloride Accumulator" with sufficient electricity to give you a full twenty four hour lighting service for your grounds and buildings. A touch of a switch gives you light whenever needed.

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You should install an electric lighting plant in your country home. Write our nearest office for our book "Electricity for Country Places." Tell us how many lights you will require and we shall be glad to furnish you with complete information.

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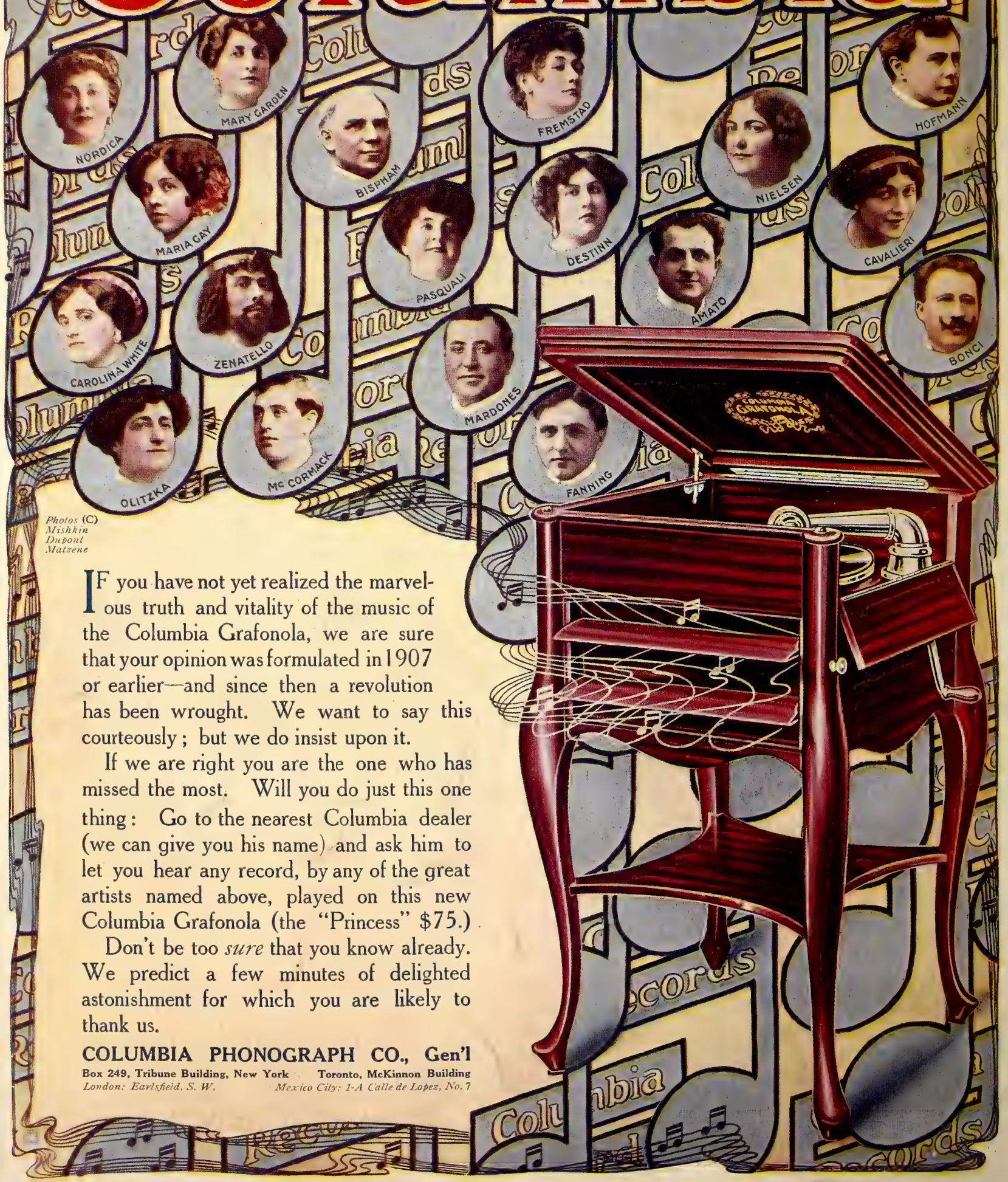

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IF you have not yet realized the marvelous truth and vitality of the music of the Columbia Grafonola, we are sure that your opinion was formulated in 1907 or earlier—and since then a revolution has been wrought. We want to say this courteously; but we do insist upon it.

If we are right you are the one who has missed the most. Will you do just this one thing: Go to the nearest Columbia dealer (we can give you his name) and ask him to let you hear any record, by any of the great artists named above, played on this new Columbia Grafonola (the "Princess" $75.)

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Vacation Articles—Portable Houses—Boys' Camps—Houseboats

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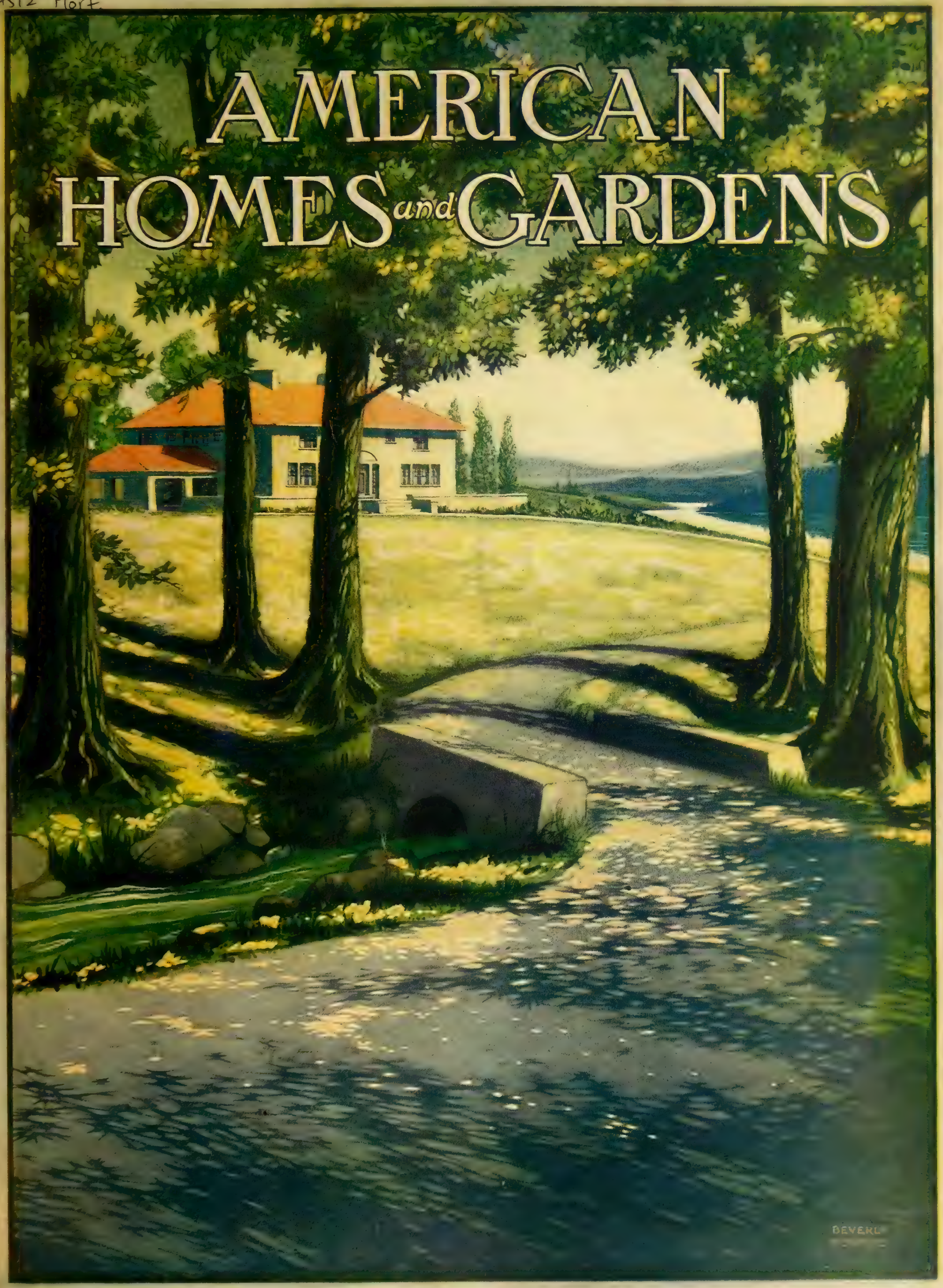
AMERICAN HOMES and GARDENS

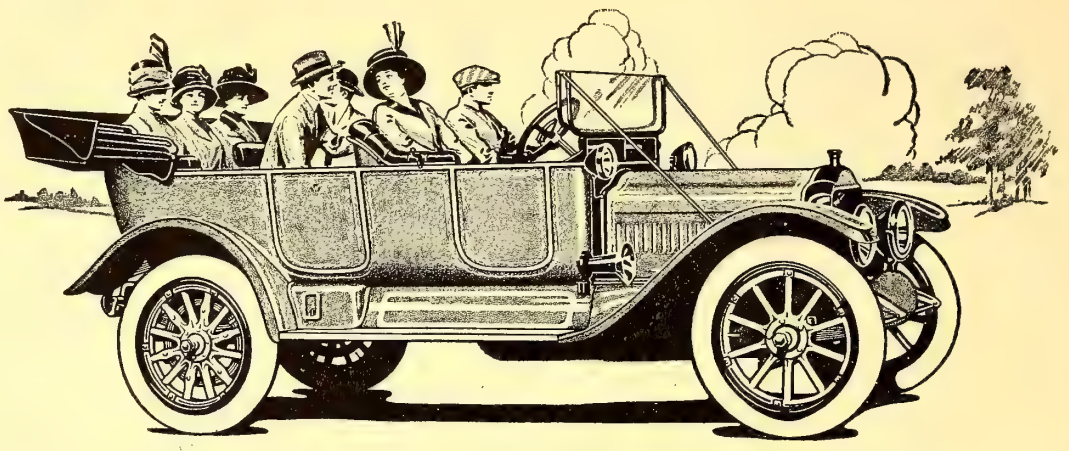


JUNE, 1912
Vol. IX. No. 6

MUNN & CO., Inc., Publishers
NEW YORK, N. Y.

PRICE 25 CENTS
$3.00 A YEAR

Touring via White



Owners of White Cars have always been foremost in Motor Car Touring, for two vital reasons—

IN the first place, White Cars are simple in construction and operation, and are built of the best possible material. White Cars are comfortable to the occupants, the spring suspension is ideal, and the car is well-balanced on the road. The driver is not tired out and cramped after a day's run. The expense for gasoline and tires is less than owners of other cars believe is possible. The oiling system is positive, and it is absolutely impossible to overheat a White motor, even under the most adverse conditions.

Moreover, the organization of The White Company is widespread, offering every service and convenience to White owners touring. The White Company is represented in ninety-one of the one hundred largest cities in the United States, and in two hundred others. A branch office is maintained in London, especially convenient for White owners in Europe. There are ten White representatives in Canada. There are also White dealers in Mexico, Brazil, Uruguay, Argentina, Ireland, Scotland, Denmark, Sweden, France, Russia, Spain, India, Philippines, Australia, and Hawaii. Representation of this character means absolute security to the tourist.

CATALOG and information concerning routes, shipping, etc., on request.

The White Company

CLEVELAND

Manufacturers of Gasoline Motor Cars, Trucks, and Taxicabs

SMITHSONIAN
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CARING FOR THE PULLETS

By E. I. FARRINGTON

IN order to have pullets begin laying early next winter, they must be kept growing rapidly throughout the Summer months. No one has a right to expect that he can neglect his chickens in hot weather and atone for this neglect in the Fall by forcing his birds. The plan will not work and will prove an expensive one to try.

If, on the other hand, the April hatched chicks are subjected to no setbacks, the pullets will naturally commence laying in October or November and continue laying through the winter season.

To have the pullets develop properly, they should have as large a range as can be given them, with shelter from the hot sun and with plenty of fresh, cool water to drink. Likewise, they should receive a liberal and nourishing growing ration, although such a one need not be at all complicated. Green food will be required; but if a wide range is given, the birds will find their own green food, consuming a large amount of grass and weeds. If they have access to the vegetable garden, they will feast on the owner's pet crops, so that fencing either the chickens or the garden is most necessary.

When plenty of grass land is available, there is no better plan than to place the birds in coops or colony houses and give them free range as soon as the brooding age is over, which will be when the chicks are from two to three weeks old, depending upon the breed; in any case, when they are well feathered out, so that heat is no longer necessary.

It is well to have these colony houses or coops on runners, so that they may frequently be moved a few feet to a new location. Such a plan obviates the necessity for cleaning out the houses at all, and the grass will quickly grow again. They should not be built with floors if the location is a dry one, for the birds will spend the nights on the ground at first and seem to do better when in contact with mother Earth. At any rate, the ground is cool in hot weather. On most plants where chickens are fattened for market, no perches are used in the colony houses, as they are thought to sometimes cause crooked breastbones. There is little danger of this, though, if the first perches are made several inches wide, and it is well to let the pullets begin to roost as soon as they desire to do so, when they are being raised for layers. Naturally, it is well to place the perches only a few inches above the ground at first.

A little more work is required when poultry is being raised on a limited area than when free range is given. It is a good plan to confine the chickens in small yards made of poultry netting and covered with this material so that they cannot fly out. One end of the yard may be covered with an A-shaped roof which will give shelter from rain and sun. When such a pen can be located on a grass plot it may be moved the width of the pen each day, so that the grass will not be worn down, while the birds will have a liberal supply.

After All, the Acid Test of Tires is Touring

YOU may take chances in the city within a block or two of a tire repair shop, but out in the country, touring, eighty miles from nowhere, you must have a tire that you can depend upon.

The Diamond Safety Tread Tire is the ideal touring tire. It is staunch, rugged, reliable and troubleless. It is safe in ticklish places and under all conditions. It has life insurance built into it—and it won't skid either forward or sideways.

And it gives you mileage—more even than the Diamond Smooth Tread Tire, which is greatest in mileage among smooth tires.

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In addition to dependable dealers everywhere there are FIFTY-FOUR Diamond Service Stations. Diamond Service means more than merely selling tires—it means taking care of Diamond Tire users.

The Diamond Rubber Company
AKRON, OHIO

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We Would Build Them Better, *But We Can't*

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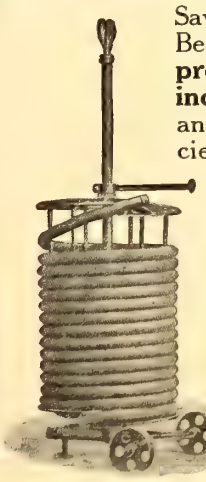

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Price, including Nozzle and Couplings, complete, 10 cents per foot net.

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Send for catalogue A 27 of pergolas, sun dials and garden furniture or A 40 of wood columns.

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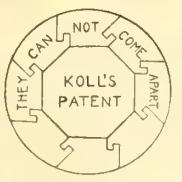
Exclusive Manufacturers of
KOLL'S PATENT LOCK JOINT COLUMNS



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MOTTLED ANCONAS

Beautiful, nonsetting, persistent layers of large eggs. $1.00 for 15 eggs.

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AND NOT A POISON—Harmless to Animals other than mouse-like rodents. Rodents die in the open. For a small house, 1 tube, 75c; ordinary dwelling, 3 tubes, $1.75; larger place—for each 5,000 sq. ft. floor space, use 1 dozen, $6.00. Send now.

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¶ The book is divided into five sections as follows:

I. **Private Country and Suburban Garages.**
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¶ Neatly bound in board and cloth. Size 7½ x 10½ inches. 119 pages.

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MUNN & CO., Inc.

361 Broadway, New York

When the chickens are confined to a permanent yard, every care must be taken to keep the ground from becoming badly fouled. If the yard is small it cannot be grassed and purified in that way, and so must be spaded over frequently. Oftentimes a handplow or wheelplow may be used to good advantage in such a yard; it is a very easy and simple matter to turn over the earth once a week with such a tool. The birds ought to be excluded from the yard in the Fall, if possible, and a sowing of rye made. The rye will make good green fodder for the pullets and older hens in winter, and will serve to renovate the soil. Much of the trouble on small poultry plants which have been established several years comes from tainted ground.

When the pullets are confined to a permanent yard, the question of green rations must be considered. Almost anything which is green and succulent will do, its principal object being to provide an appetizer and perhaps certain salts which are needed in the body. If the flock is small, there may be enough greens from the garden—bits of lettuce, spinach and the like. Perhaps the clippings from the lawn will suffice—they are easily secured by attaching a grass catcher to the lawnmower. If there should be a surplus of these lawn clippings, they may be dried in the sun and stored for use the following winter. Swiss chard is excellent for growing pullets and may be raised very easily, throughout the Summer, and even after cold weather comes, if a coldframe is placed over the plants. Only the top is removed and as it quickly grows again, a few plants will provide a constant supply of green stuff. If a small piece of ground is available, rape may be grown. Sowed early in May, it will be ready for feeding in July and yields bountifully. The chickens like it and thrive on it.

Some amateur poultrymen have found a simple way to economize labor and time. They grow a patch of grass or a few rows of chard in the henyard and cover it with one inch poultry wire fastened to a board set on edge at each side of the growing crop. These boards should be high enough so that when well started the top of the grass or chard will reach the wire. The chickens will eat off all they can reach, but new growth will quickly produce a fresh supply. If kept well watered, such a bed will yield a green ration all summer.

The pullets and cockerels ought to be separated as soon as the latter attempt crowing or exhibit masculine characteristics. The pullets will thrive much better with the male birds removed from the flock, and the cockerels themselves will grow faster and put on flesh more rapidly. Of course, they are to be fattened and sold as soon as feasible. Unless fancy stock is being grown, only a few males should be retained. The pullets will lay better probably if there are no roosters in the pens and the eggs certainly will keep longer. Much of the annoyance to which non-poultry keeping neighbors in thickly settled communities object would be eliminated if roosters were dispensed with. In any case, only those needed for breeding purposes should be carried over, unless, indeed, they are wanted to provide meat in the course of the Winter.

When the pullets are confined to permanent yards, shelter from the sun will be needed. This may be provided by growing vines over the fences or by planting sun flowers along them. Or pieces of canvas or burlap may be used to break the sun's rays. Low houses are hot and it is a good

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High altitude, dry air, good water, and a beautiful country. I sell Farms, Estates, Homes and Manufacturing Sites. All kinds and prices. Let me know what kind of property you are looking for.

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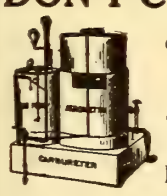

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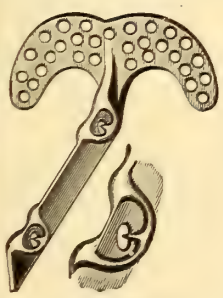

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plan to have an opening in the rear, some distance above the perches, to give a better circulation of air. In any case, the house which is to be used for growing pullets should be of the fresh-air type; that is, it should have large window openings without glass. It is well to have doors covered with poultry wire. Growing pullets can not have too much fresh air and by being made accustomed to open houses from the first, they will not suffer if kept in houses of that type in winter, for they will grow heavy coverings of feathers. And fresh air is just as much needed for the pullets after they become laying hens as when they are merely chicks.

FLOWERS FOR LATE PLANTING

By E. I. F.

IT often happens that no opportunity for making a garden offers until late in the season, perhaps as late as the last of June. In many instances people who have Summer homes in the country or at the seashore defer their planting until that time, by virtue of necessity.

Plants started late must be the kinds which love hot weather or the results will be most unsatisfactory. There are plenty of good kinds for late planting, though, among the best being the portulaca, annual poppy, mignonette, balsam, and candytuft. The first named is one of the most obliging flowers imaginable. The seeds must not be started until the ground is warm, but they germinate quickly and flower in a very short time. The creeping plants spread rapidly and the plants may be transplanted when in full flower, apparently without suffering any inconvenience. Very little water is required and the hottest kind of location is tolerated. Some of the double portulacas look like little roses and the colors are very fine. At night the flowers close. Often the seed is self-sown and new plants come up year after year. Sometimes the plant increases too rapidly, for it is a cousin of the common garden weed known as pusley. Portulacas make handsome borders and nothing is more reliable for the seashore.

The annual poppy is also most obliging, except for the matter of transplanting. If the seeds are scattered on a bed or in a border just before a light rain, nothing further in the way of attention will be needed. The flowers are very attractive with their brilliant colors and the plants are excellent for the garden which is started late—or for any other, for that matter. Candytuft and mignonette are always popular and are easily grown in hot weather and when planted late. In fact, it is well to make a succession of plantings in order to have flowers all Summer.

If it is possible to purchase plants, the petunias, verbenas, four o'clocks, zinnias, marigolds and pinks may be set in the garden very late and will continue to flourish. People who go to their Summer homes late in the Spring and remain late in the Fall may sow seeds of asters, verbenas, nasturtiums, cannas, cockscombs, zinnias and four o'clocks and still get flowers before the end of the season in most instances. Of course, the flowers which mature more quickly, the started plants, are needed for immediate blossoming. The kinds named do not require a great amount of attention and it is often better to let them grow in a more or less natural way on the grounds of the Summer home, rather than to attempt any elaborate garden scheme.

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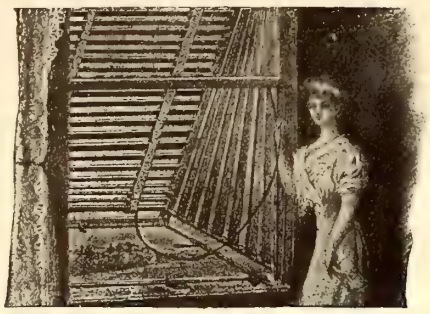

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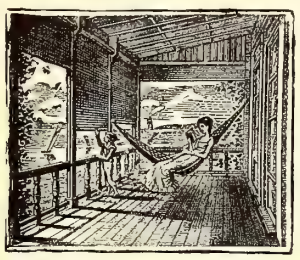

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GROOMING AND EXERCISE: NECESSITIES FOR THE DOG

By T. C. TURNER

EVERYONE who keeps a horse knows the importance of grooming, but few who keep a dog recognize the value of this attention to his skin and his coat. No animal shows his general condition of health more quickly than the dog through his coat. It may be noticed that the dog does not sweat as freely as many other animals. He has less ability to throw off poisonous matter, therefore for these and other reasons the care of the skin is of importance.

Grooming should be done according to the size of the dog, his breed, and the nature of his coat, by means of brushes, rough gloves, cloths, combs, and particularly by the naked hand. Common sense will dictate which of the various methods to resort to, but never neglect the naked hand for finishing the work. The friction of vigorous rubbing distributes the blood and makes possible the oiling of the coat by nature's process. A good brushing removes the dust, takes out the dead hair and frees the skin from dandruff. Every breeder for exhibition knows the value of grooming and treatment of the skin, but few who keep a dog or two recognize its importance. A well-bred dog could often be much improved by this little additional care. I speak mainly of the dogs kept more or less in a state of confinement, not of those who roam at large on farms or country estates, as they resort to nature's methods of cleansing—those of the streams, the grasses, the clean earth, and except on special occasions they need little more than a good straw bed to keep themselves in perfect condition.

Although washing is at times a necessity, avoid it as much as possible except for medical purposes, but do not hesitate to resort to it if the coat has become so soiled that the brush will not remove the dirt. The danger in washing a dog is that they are very susceptible to catching cold and great care is needed after the washing to prevent this. In starting to wash, always wet the head with cold water before the dog is placed in the bath or tub of warm water; do not wash in any place where the temperature is less than 60°, dry with cloths rapidly, avoid any draughts during washing or after, and when the coat is thoroughly dry give the dog a sharp run.

Dogs are peculiarly subject to constipation, particularly is this the case with those kept in cities, for under conditions of city life it is almost impossible for a dog to get the proper exercise which his system requires. To take a dog out on a lead is a poor substitute for exercise. Even yards, though of fair size, are but moderate exercising places. The dog to be kept in the best condition should have access to the fields and woods at least once a week, the more often, the better. By this freedom his exercise is pleasant, he can romp at will, and will see more changes and travel more miles in the space of one hour than you would ordinarily take him in one week. The distance such dogs as the terrier varieties will travel when left to their freedom in pleasant surroundings is astonishing. I have known terriers that would follow a horse on a twenty-four mile journey, twelve miles out and twelve in, and at the very least they would do another ten miles going off into the woods, running ahead and coming back on call to follow the horse. They did not seem to want to rest even when the horse was put up at the break of the journey for his midday meal, but when they returned to the kennels that night it was for a sound sleep.

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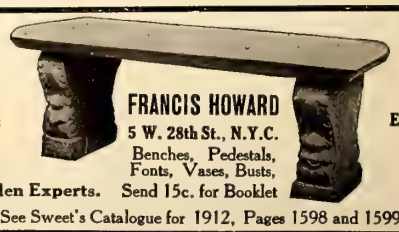

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WHAT YOUNG HOUSEHOLDERS SHOULD KNOW

By MAUDE E. S. HYMERS

WHETHER he owns or rents it, there is much that the young householder should know about the house he lives in. The youthful homemaker, setting up his lares and penates for the first time, may thoughtlessly imagine that the house should take care of itself, but time will teach him his mistake. Regardless of whether the landlord or himself pays for necessary repairs, something beside the deterioration of the house, the comfort and health of his own family, depend on his understanding of many things that go to make up the modern home.

The plumbing alone may occasion great discomfort, from such simple causes as the exigencies of the weather. Of course every man cannot be his own plumber, but he can take such precautions as will make the plumber's visits, and the subsequent discomforts, few and far between. Let him study the map of his basement ceiling as an astronomer the heavens, until he knows the location and destination of every pipe in it. He should be able not only to distinguish the gas from the water pipes, but to lay his finger, in the dark if necessary, on the cut-off for every pipe there.

Knowing the shut-offs he should also know when to use them; for instance, on unusually cold nights when nature indicates a decided drop in temperature, it would be the part of wisdom to shut off the intake pipe outside the house. This, followed by an opening of faucets and emptying of pipes inside the house, will insure your having water for the breakfast coffee, rather than an expensive visit from the plumber. There is little use, however, in shutting off the water unless the pipes are emptied, for enough remains inside them to cause trouble.

When a frozen pipe is discovered, if possible cut it off from the rest of the piping, open the faucet and wait for the natural heat of the house to thaw it. If it proves stubborn, cloths wrung out of hot water may be applied to the pipe, but always with the faucet open to permit escape of steam. Never pour boiling water directly on a frozen pipe for a break will be inevitable.

When leaving home for some time in Winter by all means shut off the entire water supply, lest on your return it come rushing from the windows and down the walks to meet you, as actually happened to an acquaintance of mine, whose house was flooded from a particularly annoying break. In Summer take a last look around before leaving to see that all faucets are turned tight enough to prevent leakage and consequent rust spots. Emptying the trap of the toilet to prevent rust is also a good idea, but a non-corrosive disinfectant should take its place to prevent the escape of sewer gas. The first act on returning should be to thoroughly flush all openings and air the house to avoid danger from noxious gases.

At all times be on your guard against leaks, not only from broken pipes, but from dripping faucets. The latter may be occasioned by carelessness in only half closing them, or by deterioration of washers. It is well to keep on hand a supply of rubber washers, and renew them whenever a faucet shows any inclination to drip. An excellent method of repairing small leaks, pending the arrival of the plumber, is to bind the pipe about the break with several thicknesses of cloth, which sprinkle thickly with plaster of paris. This hardens quickly into a sort of cement which sometimes stops the leak indefinitely.

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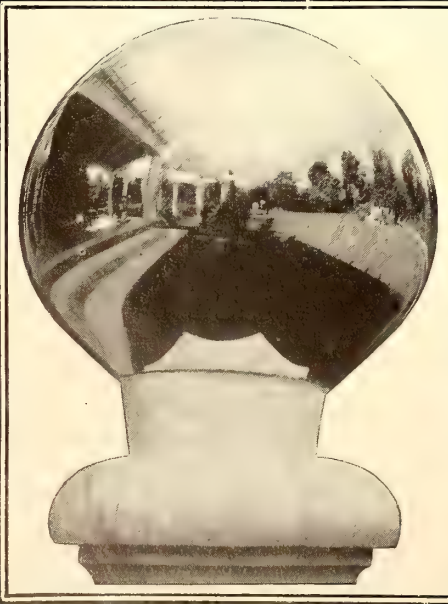

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To permit a leak to continue because of the plumber's bill, is mistaken economy, since it is only "robbing Peter to pay Paul," the increased water bill eating up the saving. It has been estimated that a leak the size of an ordinary hatpin will waste about a thousand gallons of water in twenty-four hours; while one as large as a knitting needle would increase the bill by three thousand gallons of water in the course of a day.

The furnace coil is another source of possible trouble. In localities where the water contains much lime the pipes will gradually fill with deposit as does a teakettle, until nearly or quite full. This will be indicated by heavy, pounding noises in the pipes, and should be regarded as a warning to have the coil removed for a new one. The average life of a furnace coil under such conditions is three years only, and it is unwise to risk it longer. In case it is not attended to there will some day be a small explosion, with emptying of the water tank through the fire box, much steam and a cellar full of ashes and water, not to mention the fright given the members of the household.

Of course when this happens the first move should be to shut off the pipe to the water tank; if this is not located the intake pipe must be shut off, which means that all the water in the house piping will proceed to empty itself in your cellar, via the furnace; hence the wisdom of being personally acquainted with the various cut-offs.

The cleaning of the furnace is another matter not to be overlooked, since clogged air pipes will increase the consumption of coal, while it is still impossible to raise the temperature of the house to the desired point.

Even with a furnace properly cared for, on windy days it will be found difficult to heat the rooms on the side of the house from which the wind comes. Especially is this true of a hot-air furnace, where it seems that the wind pushes the hot air back into the pipes so that they sometimes grow cold to the touch. A cold pipe cannot be induced to warm a room, hence it may become necessary to first heat the pipe. This may be done by shutting off all the others for a few moments and forcing all the hot air into the cold pipe until it becomes warm, when the hot air will flow through it again. Sometimes outside heat is necessary, such as holding a lighted lamp beneath it.

Where the house has electric light service this difficulty can be permanently overcome by installing an electric fan with ten or twelve-inch blades in the pipe between the cold air intake and the furnace; the controlling switch being conveniently located on the first floor. The use of the fan will force air through all the pipes and insure an even heating of the rooms, with perfect circulation. The cost of running such a fan is not great; only about that of an eight candle power light.

With hot-air and hot-water furnaces also comes the question of dry air in the living rooms. Most hot-air furnaces have a small tank beneath, which when kept filled with water insures moisture in the air above. The filling should on no account be neglected. If there is no such tank small pails of water may be hung in the registers, or jardinieres on top of the radiators.

In electrically lighted homes it is possible to cut the bills somewhat by substituting four candle power lamps for larger ones wherever possible; such as at the head of cellar stairs, in halls, bathrooms, etc. Here only light enough to see one's way about is necessary, and a small light left burning will cost no more, and be much more convenient, than larger lamps forgetfully left

burning half of the time. This is true also of gas lights, where burners having pull chain fixtures, allowing a flicker of light to serve as a torch, are substituted for common ones.

Burned-out wires in bulbs are a large expense, but these may be mended if only one wire is broken. To do this attach the bulb to a drop light, turn on the electricity and hold the bulb between yourself and the light, shaking it gently back and forth. The broken ends will meet and the current weld the wires together again.

If gas is the lighting system it is even more necessary to know the location of the pipes, the shutting off of the flow of gas at the opportune moment having often prevented serious fires.

It is also even more important to beware of leaks, not only in consideration of the pocketbook but the health of the family. Never, however, make the mistake of looking for a leaky gas pipe with a light. The nose and the ear should be sufficient guides; after which try smearing the suspected spot with a thick paste of soapsuds. If bubbles form in the paste you may be sure there is a leak there, which should at once be attended to regardless of expense.

COSMOS TILL CHRISTMAS

IN the country about New York, blossom time offers such a wealth of floral loveliness and the season of sere leaf and gusts of snow is so niggardly in this respect, that some method by which blooms may come fresh from wintry gardens to brighten indoor life at Christmastide, is well worth knowing.

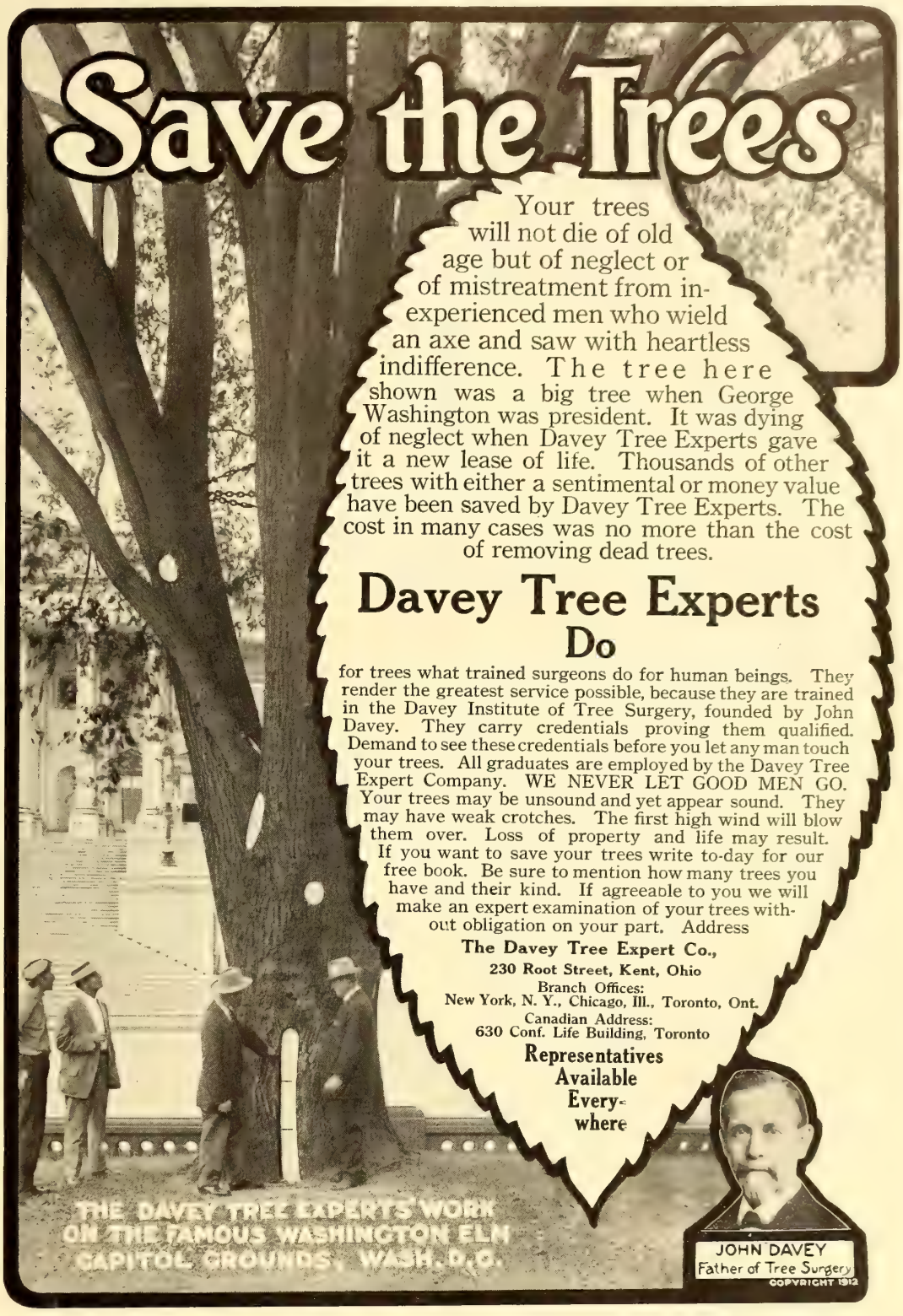
The flowers which so rewarded my care were white and pink cosmos, of which I cut enough just before Christmas to adorn two rooms and the foyer with six large bunches. By changing the water in which they stood and clipping the ends of the long stems each day these dainty blossoms lasted for more than two weeks, buds opening constantly to add a fresh supply of blooms.

The secret of my beautiful harvest of cosmos lay in the fact that my garden is situated on the southern slope of a thickly wooded mountain and the portion of it in which I planted cosmos was further protected by an angle to the north and northwest formed by a tall hedge of privet and the house. Back of some terrace beds of perennials I planted, late in Spring, a thick border of cosmos to form a delicate background of green for blossoms of various sorts until chrysanthemums finished the season in November.

My cosmos were of two heights, the taller variety spreading thick symmetrical branches some seven or eight feet above the terrace. They commenced blooming profusely early in the Autumn and continued to blossom through snows that several times froze full-blown flowers but never seemed to injure buds or plants, until a storm that threatened unusual severity decided me to cut every budding branch and bloom a few days before Christmas.

The earth in which my cosmos were planted consisted of unfertile native red clay and pebbles mixed well with a compost of rotted manure and leaves, and the plants were said to exceed in height, spread and thickness of branches and quantity of bloom any in that vicinity.

The same fortune which attended the cosmos prompted red, straw-colored and white chrysanthemums, which were planted in a border against the southern side of the house as well as in front of the cosmos, to yield blooms until early in December.



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If you send me your order before July 1st I can import Tulips, Daffodils, or Hyacinths specially for you, and deliver the bulbs about the middle of September.
The finest bulbs can be secured only by ordering early, and for this reason I give a special discount of 10 per cent. on all orders received before July 1st.
I will fill orders after July 1st, but I cannot guarantee such high quality bulbs.
Send for my Bulb Book and learn about my plan; then make your selection at once, so that you may be sure of receiving Holland's finest bulbs for your garden.
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We do the long waiting—thus enabling you to secure Trees and Shrubs that give an immediate effect. **Spring Price List gives complete information.**
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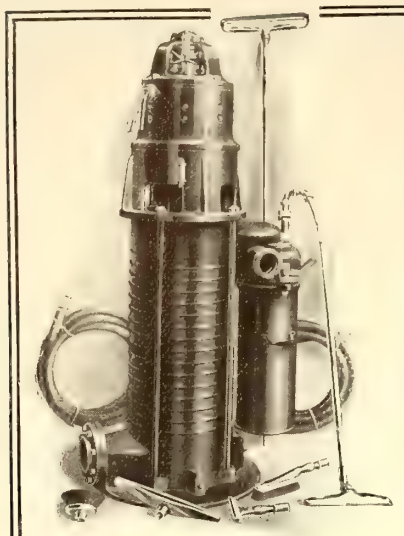

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have recently been chosen for the largest vacuum cleaning installation in the world—

Nineteen machines for the General Hospital Buildings, Cincinnati, Ohio

Proven superiority in efficiency, simplicity and durability of the Spencer Turbine Cleaners makes them logical installations for the great buildings of today and the greater buildings of tomorrow

The mammoth *Woolworth Building*—tallest in the world—and the *Banker's Trust*, both being erected in New York City, are being equipped with Spencers.

Spencer Turbine Cleaners in the basement have pipes running up through the building to each floor, with hose attachment for cleaning. Machines are made in 12 sizes, from ½ H. P., 1-sweeper, to 40 H. P., 16 sweepers capacity—for the smallest residence or the tallest skyscraper.

On request a free Catalog and list of Installations will be furnished as references.

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THE BATHING HOUR AT SEA BREEZE

HEAVY LOAD ON A HOT DAY

NO PLAYTIME FOR HER

IN NEED OF FRESH AIR

FROM STIFLING TENEMENT TO SEASHORE AND COUNTRY

Do you know that the New Yorker living below Fourteenth Street has an average of only 18 square feet of breathing space? Can you imagine anyone more in need of fresh air outings than these dwellers in sultry homes, hemmed in by scorching pavements?

Neither opportunity nor money is theirs with which to seek pure air. For them fresh breezes and outdoor freedom are made impossible by congestion. Every penny of their small earnings goes to satisfy pressing needs.

Mothers, children and babies, broken with toil, ill-nurtured, or frail, appeal through us to you for a bit of sunshine and relief from care in the country, or at Sea Breeze, our seashore Home at Coney Island.

Would you not enjoy your vacation more if you knew that you were enabling or helping

A convalescent mother to regain lost health?
A worn-out widow and her children to be care-free for a week or two?
An aged and friendless woman to gain new life and cheer?
A weary shop girl to enjoy a glorious week of freedom?
An under-nourished baby to get fresh air and pure milk?
An anæmic school boy or girl to win a new start for the next year?

Won't you help them? The trouble of sending a contribution is nothing compared to the joy that it will bring to some of these stifling homes.

NEW YORK ASSOCIATION FOR IMPROVING THE CONDITION OF THE POOR

R. FULTON CUTTING, PRESIDENT

A HAPPY LITTLE MOTHER

WHO SAID WE ARE AFRAID?

HOW THE WAVES TICKLE MY FEET

SUGGESTIONS

A lawn sociable by your class, Sunday school or club.
A card party at your summer hotel or camp.
A subscription among your friends.
A list of people to whom we may send either this appeal, or others similar to it, *without mentioning your name.*

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ANTECEDENTS OF THE FIRELESS COOKER

THE first definite mention of the fact that food could be cooked without continual heating is said to have been made by the great chemist Justus von Liebig, in the year 1847, although Juvenil, the Roman poet, informs us that the basket which constituted the sole house furniture of the poor Jewish beggar woman of Rome was filled with hay for the purpose of keeping warm the bits of food which were given to the beggars.

The action of a fireless cooker depends upon the fact that a non-conductor of heat surrounding a cooking vessel prevents loss of heat from any material which is put into the vessel in a hot condition, so that the material to be cooked remains for a long time at a high temperature and becomes "done" without further heating. In the case where a certain food requires an average time of four hours' cooking it is only required of a fireless cooker that it retain sufficient heat for that length of time without allowing the temperature to fall below 70 deg. Cent.

Sixty years ago the peasants of Baden were accustomed to the use of the so-called hay box, a simple box provided with a lid and filled with straw, in which the farmers placed hot food in the morning for their dinner in the harvest fields at noon.

In certain other European districts one will occasionally find the practice of wrapping cooked food in cloth and placing it in the still warm bed to remain until the next meal time. In the middle of the last century the hay box of the peasants of Baden found its way to Paris, where it underwent various modifications in which other poor conductors of heat were employed in place of hay. At the World's Fair in Paris (1867) there was exhibited a fireless cooker under the name of "Cuisine automatique norvegienne." In this fireless cooker the non-conducting material consisted of cheap Norwegian fur.

The first public manufacturer of fireless cookers was Johann Heinrich Meidenger of Carlsruhe, who made many experiments on the heat conductivity of the walls of ice boxes. He found that finely chopped hair, wool, hay and shavings were good insulators for the purpose. Meidenger's fireless cookers astonished the German public to a degree which we can scarcely comprehend. The action of an old box in which anyone could within three or four hours, cook food without fire was regarded as downright inexplicable.

The first quoted price for fireless cookers was 22.5 francs (about $4.50).

The fireless cooker has been the means of effecting important changes in certain industries of Berlin, notably the cigarette industry, in which both men and women were employed. It was the custom in this industry to allow the women to cease work an hour or so before lunch time in order that they might have an opportunity of preparing a warm meal for their husbands and families, who were frequently co-workers. Employers on hearing of the fireless cooker introduced it to their work people, and by persuading them to adopt it made it possible for the married women workers to remain at work an equal length of time with their husbands, since the workers could bring their lunch with them and have it smoking hot at lunch time.

Certain of the German State railroads have provided certain classes of their employees with fireless cookers in order that they might have warm food without the necessity of leaving their posts.

Like a yard with shade trees and shrubbery, cool, seclusive and inviting, is the porch screened from the blazing sun with

Burlington Venetian Blinds

You can easily fit your porch with Burlington Venetian Blinds, and you can readily adjust the blinds at an angle that will allow free circulation and yet keep out the hot sun.

Write for FREE, Illustrated Booklet

This booklet will show you that your porch can be that which it ought to be—your summer living room.

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Standard Model - - $850
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See it at local branch in all large cities

Architectural Styles for Country Houses

Do you know what kind of a house you want for your own home? The Colonial type, or the Spanish Mission, or the Swiss châlet, the Italian villa, or those of the Dutch Colonial type, or the half-timber house? Here is a book that will familiarize you with all the distinct styles now used for country homes. Each chapter is written by a prominent architect from the point of view of an enthusiast. Illustrated with photographs and plans. Price, $2 net; postage, 20 cents.

Concrete and Stucco Houses

By Oswald C. Hering

The time is approaching when it will be cheaper to build of concrete, the fireproof material, than of wood. You cannot look at the superb illustrations in this book without being convinced that a concrete house, properly designed, is not only the most durable but among the most beautiful of buildings. Illustrated with photographs, diagrams and floor plans, with colored frontispiece. Price, $2 net; postage, 20 cents.

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By Allen W. Jackson

Mr. Jackson contends that this half-timber style of home with its contrast of dark beams against the light plaster, is our rightful heritage, more so than Colonial or any other style. And he makes you know the half-timber house so intimately—its idiosyncracies, its characteristic detail—that it is very easy to believe as he does. Illustrated with photographs, diagrams and floor plans, with colored frontispiece. Price, $2 net; postage, 20 cents.

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THE ANTIQUE COLLECTING INSTINCT

By ROBERT LEONARD AMES

PERHAPS the antiquarian, like the poet, is born and not made. The spirit of the true collector will take him into all sorts of places—into the bypaths as well as the highways—for he has learned that in even the most unpromising spots a treasure may be discovered. Possibly the collecting instinct may direct him, for if it be that the true journalist is gifted with the "nose for news" it is quite as logical to suppose that like intuitions in others may be equally keen.

Who could think of a field for collecting, more unprofitable than the homes of the very poor of the lower East side of New York city?—and yet here one collector discovered the most beautiful pieces of old metal work which formed the greater part of a vast collection of brasses, samovars, candelabra, and many other objects of wondrous beauty. The writer remembers visiting this great collection late one Winter afternoon. In a long and lofty room of an old New York house the walls had been covered with a fabric of a rich, deep brown. The woodwork had been painted and rubbed down to an old ivory tone and amid this beautiful setting was arranged a dazzling array of brass, old braziers with richly perforated covers from Portugal or Spain; milk cans and warming pans with lids etched and pierced, from Holland or Belgium; candlesticks of every size and period and from every country, and the most wonderful objects—lamps and other religious emblems which must have been for generations the houshold treasures of the Dispersed of Judah. The effect of this bewildering variety of metal, softly polished to a velvety surface, with the afternoon sun cast upon it, is a recollection ever to be enjoyed.

Into our great cities is poured each year a vast horde of immigrants from the older countries of Europe. These people arrive with the tenacity of ideas which has come down to them through long centuries of poverty and oppression, but a subtle something in the atmosphere of the land of the free seems to cause a sudden change in their attitude and this, of course, affects their methods and modes of living. They try, perhaps quite naturally, to become part of the life which they find about them and begin almost immediately to adopt the styles of dress which they see suggested in the shop windows and are quite willing to discard the costumes in which they reached Ellis Island, for the cheap finery they see worn upon the street. These altered ideas soon find expression in their willingness to sell their treasures and heirlooms for what will give more enjoyment, and right here is the opportunity for the careful collector to secure what to him are the most beautiful objects. The poor from Russia are soon ready to dispose of their icons and antique brasses, their samovars and such strange, semi-barbaric jewelry as their poverty has left to them. The women from Italy are eager to exchange their filet laces, embroidery and bright colored shawls for paltry furbelows, and the Norwegians see little of value in their carved wood and old pewter, when their sale will procure some of the hideous household furnishings which they see on sale everywhere, and which they think are examples of American taste.

An antique dealer was once asked where he obtained the wonderful and beautiful things which crowded his shop. He replied that he imported but few antiques, but that he or his agents are continually

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THE WORLD'S LEADER

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removing all desease bacteria, cleansing and purifying your water.
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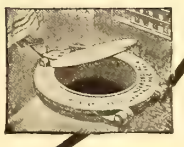

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No litter, no chance for flies, cats or dogs—no danger of fire or infection with

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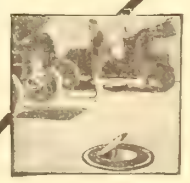
Also Underground Earth Closet with Portable Steel House—protects water supply of farm or camp. Other practical articles of the Stephenson Line.



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A NOBLE tree thrives because the leaves, twigs, branches, trunk and roots are all working together, each doing its part so that all may live.

Neither the roots nor the branches can live without the other, and if the trunk is girdled so that the sap cannot flow, the whole tree dies.

The existence of the tree depends not only on the activity of all the parts, but upon their being always connected together in the "tree system."

This is true also of that wonderful combination of wires, switchboards, telephones, employes and subscribers which helps make up what is called the Bell Telephone System.

It is more than the vast machinery of communication, covering the country from ocean to ocean. Every part is alive, and each gives additional usefulness to every other part.

The value of telephone service depends not only on the number of telephones, but upon their being always connected together, as in the Bell System.

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One Policy *One System* *Universal Service*

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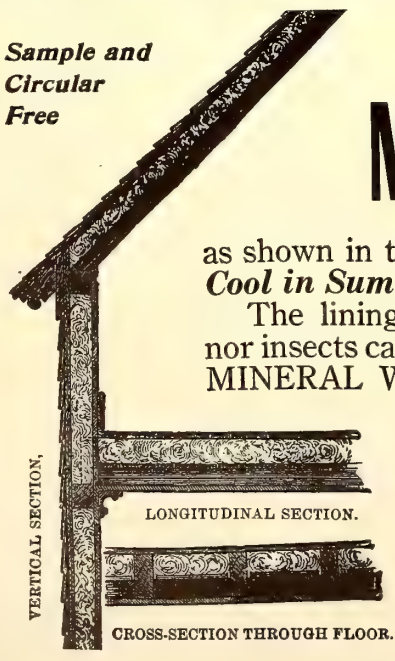

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U. S. Mineral Wool Co.

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buying from the foreigners who have but recently arrived and who are being "Americanized." His reply may suggest many an idea to the discriminating antiquarian for after all a very large part of the pleasure of collecting is in the experience which it involves. The pleasure of collecting in Europe is being ruined by the unscrupulous frauds which are being perpetrated almost everywhere. Not long since the American consul at one of the continental cities, felt obliged to warn tourists from America of the trickery which was being widely practised, and when one remembers the wiles of some antique dealers at home, he can readily understand the ease with which such frauds are managed abroad where a certain foreign setting lends more than usual attractiveness and plausibility to the wares. Then, too, Americans are often willing to delude themselves into supposing that what they see abroad must be really old, and they seem to have a genius for being imposed upon.

Not long since a New York woman purchased a great number of the really beautiful gilded glass objects on sale in Venice; she did not suppose them to be old for she could see them being made at the works at Murano, but she thought it would be impossible to purchase the articles in America at any price. And yet the same wares and in many cases the identical patterns are on sale in the china and glass departments of many American stores.

Everyone knows, or has heard, of the "salting" of antiques abroad and particularly in England and in Scotland. An enterprising dealer in reproductions from London or Edinburg, will "consign" certain coffers, chests, benches or gate-leg tables to farmhouses or inns much visited by tourists. These inns or farmhouses are, of course ancient, and their picturesque names and signs have been landmarks for centuries, while their quaint interiors form a fitting background for the interesting, beautiful, but not antique furnishings, which have been "consigned." A number of young Americans were once having ale and cheese at a picturesque little inn in Devonshire; one of the party was attracted by the beauty of the little table at which they were sitting and jokingly asked if it were for sale. He was surprised at the ease with which it was secured and it was triumphantly carried away in their motor car; but a few weeks later he found an exact duplicate installed in its place and still later on he discovered many such tables in similar taverns and inns.

BREAD OF THE VIKING AGE

DR. SCHNITTGER, professor at Stockholm University, has made an interesting find relating to the remote past of his country at Ljunga, in Eastern Gothland, viz., some bread dating from the time of the Vikings. Microscopical examination has shown this bread to be made from pine bark and pea meat, thus proving the fact that peas were grown in Sweden as far back as a thousand years ago. Archæological excavation has so far brought to light only a few specimens of bread dating from ancient or prehistoric times. The few loaves excavated in Egypt and in Swiss lake dwellings are of the highest archæological interest. In the northern countries only one or two finds of this kind have so far been made, foremost among which should be mentioned a corn-meal loaf dating from the fourth century A. D., which was discovered by Dr. Schnittger in 1908 in connection with the excavation of Boberg castle.

THE EDITOR'S NOTEBOOK

THE JULY NUMBER

THE midsummer number of AMERICAN HOMES AND GARDENS will be one of the most attractive issues of the year, full of excellent material of the deepest interest to every homemaker and beautifully illustrated from cover to cover. Indeed, the Editor is constantly in receipt of letters from the magazines and others complimenting AMERICAN HOMES AND GARDENS on its remarkable illustrations, expressing some wonderment that it is possible to make each succeeding issue as handsome as the one preceding. As the magazine not only selects the finest photographs available but likewise has its own direct photographic staff, it is possible to present to its readers illustrated features unsurpassed by any other magazine in the field of periodicals devoted to homemaking.

THE magazine knows what to place before its readers because its editorial policy keeps it closely in touch with them. In its various departments AMERICAN HOMES AND GARDENS seeks not so much to keep its readers informed of novelties as it does to present old truths with vital emphasis. The articles that appear in these departments are essays worth reading, not only by reason of their subject matter but also because they are all well written.

IN the department *Within the House,* the matter of the interior of the house, large or small, its decoration, furnishing, papering, painting, flooring, plumbing, lighting, heating, etc., comprises a field in which the articles that appear in AMERICAN HOMES AND GARDENS stand unrivalled.

SUMMER and Winter there is no abatement in the interest in horticultural matters shown by our readers, because month by month AMERICAN HOMES AND GARDENS prints the best gardening articles that can be procured that will be of definite value to the home-builder and homemaker. In this connection the regular department, *Around the Garden,* is of especial value to every reader of the magazine.

THE ideal of the American home is not the pretentious estate that is merely a show-place requiring an army of servants for its upkeep. Instead, the home and the garden of the man of moderate means more nearly approach the true conception of the American ideal. Therefore AMERICAN HOMES AND GARDENS is eagerly read by the housewife as well as by other members of the family by reason of the attention it gives to small houses and to the many matters within her province. In every issue appears *Helps to the Housewife,* a department conducted by Elizabeth Atwood, one of the highest authorities on home economics. American mothers, and fathers as well, can ill afford to miss reading her essays on home topics.

THE July number will have for its opening article a description of a delightful Massachusetts country home, showing exteriors and interiors. An interesting article on a little studied phase of Furniture will appear under the same authorship, Harold Donaldson Eberlein and Abbott McClure, followed by Adelia Belle Beard's article on *The American Pageant.* Several small houses are illustrated and described in this issue, accompanied by their plans. The double-page feature will be one of the handsomest that has appeared in the magazine this year.

THE July issue will give especial emphasis to the subject of *The Isolated Power Plant* in an excellent article by Jonathan Rawson, and to Plumbing fixtures in an interesting and valuable article by Robert Cowie. Other features that will appear in this July issue cannot fail to commend the magazine to every homemaker in America.

SCHOOLS OF PRINTING

OUTSIDE of England (under the influence of William Morris and those following in his steps) and, later, Germany, no other country has given so much interest to the study of printing and typography as has America, despite the fact that foreign publishers have, perhaps paid more attention to the subject of the appearance of unillustrated books than have we in this country. However, the interest in printing to which the Editor refers is that which affects Americans at large, and a few months ago Mr. John Cotton Dana, in an address before the Harvard Graduate School of Business Administration, called attention to the rapid development of schools of printing in the United States. In addition to the Harvard School, the Inland Printing Technical School in Chicago, Mr. Dana called attention to the printing course in connection with the School of Journalism at the State University of Washington, the printing course at the United States Indian School, Carlisle, Pennsylvania, the North End Union School of Printing in Boston, the printing course of the New York Trade School in New York city, the Columbus Trade School, Columbus, Ohio, and the printing course in the Cleveland Elementary Industrial School. In addition to these, one might call attention to the practical courses of instruction at Tuskegee, at the Utica Normal and Industrial Institute in Mississippi, and other institutions. This awakening interest in the printing trades industrial education is one which everyone should be glad to note, and it should receive the attention of all persons interested in industrial education, for in this matter of printing better facilities should be open to all our youth.

SUBSCRIBERS' OWN GARDENS

AMONG the subscribers of AMERICAN HOMES AND GARDENS are many who are especially interested in their gardens. With this in mind AMERICAN HOMES AND GARDENS offers $10 to the subscriber who sends us the best photograph or set of photographs of his or her own garden, accompanied by an account of its planning, planting, care, etc., which description should be between six and eight hundred words. All manuscripts and photographs should be plainly marked with sender's name and address and accompanied by postage for return. The articles and photographs must be submitted before September 1, 1912. Other garden photographs and descriptions of interest will, if retained by the Editor, be paid for at the magazine's regular rates.

The article, "Hints on Using Copper on Outside Building Work" appearing in March number of AMERICAN HOMES AND GARDENS was incorrectly ascribed to A. C. Varian instead of to Charles K. Farrington, its author.

SARGENT

Hardware

No feature of building is more important than harmonizing the finishing and decorating with the architecture of the various rooms.

No feature of the finishing is more important than the refinement and beauty of the hardware employed.

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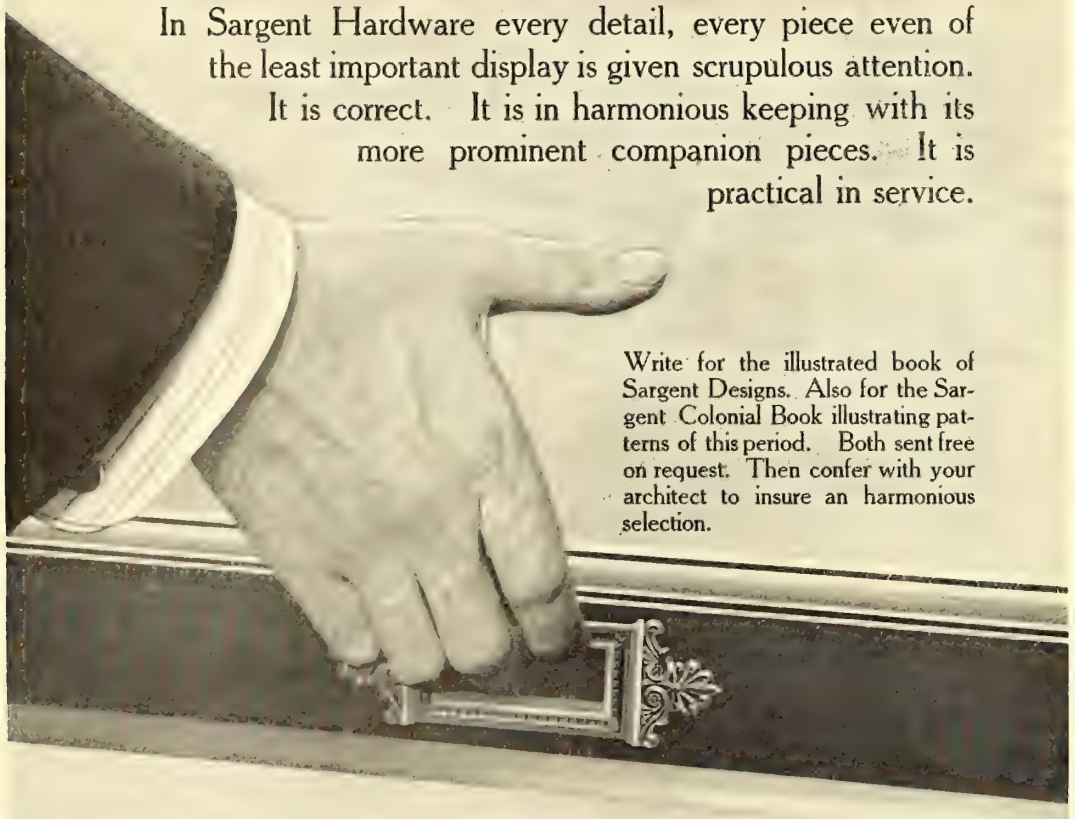

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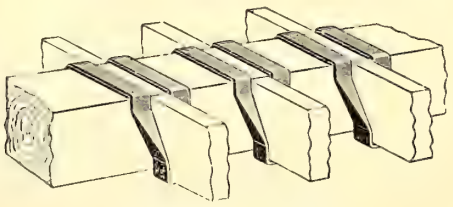

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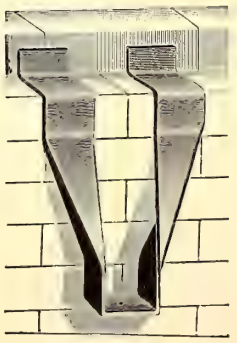

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GIRDLING GRAPE VINES

By E. I. F.

IN sections where early frosts interfere with the growing of early grapes, it is a common custom to girdle the vines, by which means the time of ripening is hastened from three to five days. The work is done by taking out a ring of the bark below the fruit an inch or less in width, a sharp knife being passed around the cane twice and the bark then peeled off. The result of this treatment is that the elaborated sap beyond the point girdled does not return to form cane or root, but is taken up by the fruit increasing its size as well as causing it to ripen earlier than under ordinary conditions.

Discretion must be used when this plan is followed, and enough of the canes left ungirdled so that the development of the root system and the making of new canes for the next year's fruiting will not be interfered with. After the crop has been gathered the girdled canes are cut away.

The time for performing the girdling operation is from July 1st to September 1st, but the earlier the better, as a rule. The work is easily and quickly done and the plan is worth trying if it will save the grapes from being caught by frosts.

Another plan practiced by grape growers and commended to amateurs is the bagging of a number of the choicest clusters. An ordinary paper bag will answer and the three-pound size is commonly used. The bags may be fastened about the stem with a bit of twine or with pins. Grapes treated in this fashion mature deliciously and are free from the attacks of birds and other pests. If orioles are plentiful they often do much damage in the grape arbor by piercing the fruit with their bills. Bagging is a perfect protection.

CATALOGUING EARTHQUAKES

A WRITER in the *New York Evening Post* points out that "the modern seismographs scattered about the world record about eighty-two earthquakes a day, or approximately 30,000 each year. Most of them, 99.8 per cent., to be exact, are such slight trembles as to be of no importance. This leaves some sixty a year worth recording. Several elaborate and painstaking efforts have been made to compile complete records of the world's quakes since very early times. The late Robert Mallet and his son made such a list, extending back to 1600 B. C., or thereabouts, and the Count de Montessus de Bellore of Chili has collected records of 140,000 earthquakes. The futility of the attempt at completeness is obvious when it is remembered that at the present rate of 30,000 a year there must have been about 6,000,000 quakes since the Christian era began.

"It has been possible, however, to make a seismic record covering the Christian era of some scientific value by eliminating the minor earth disturbances. Even the results of this limited compilation, recently published for Prof. J. G. Milne by the British Association, are very imperfect. His records begin at 7 A. D. and extend to 1899, a period of 1,893 years. They include only what he calls destructive earthquakes, that is, 'those causing some marked injury to property.' His lists contain but 4,151 such quakes, whereas at the present rate of sixty a year, there should have been something over 100,000. He could find reliable records and details of but 4 per cent. of the probable total. The most disastrous and fatal quake of which he gives details was that of 1556, in China, when the loss of life was estimated at 830,000."

AMERICAN HOMES AND GARDENS

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MUNN & CO., Inc.
Publishers
361 Broadway, New York

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Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

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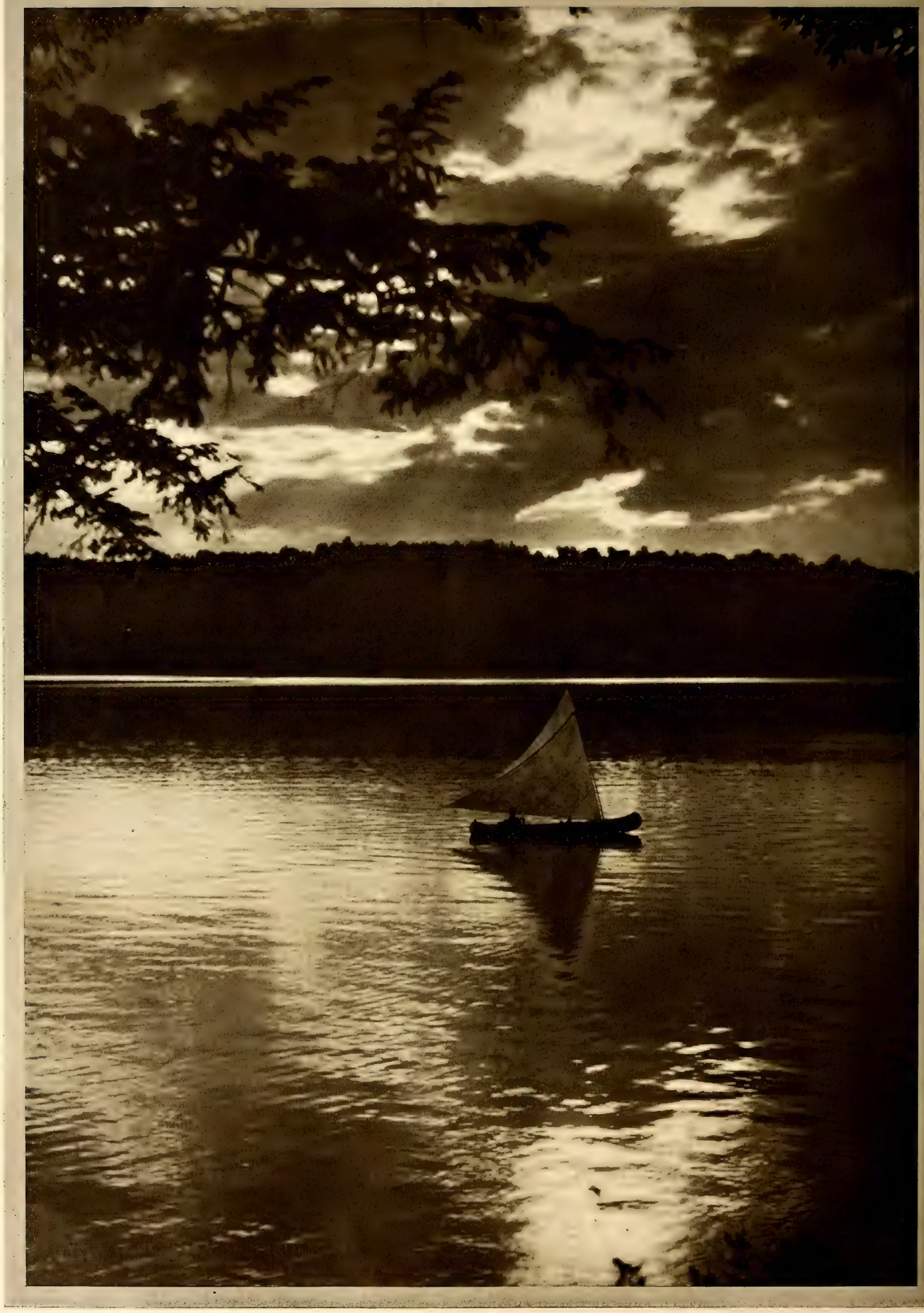


June sets the fancy wandering over hill and dale, lake and stream, to mountain top and by the seaside, when everyone is thinking of vacation time

AMERICAN HOMES AND GARDENS

Volume IX — June, 1912 — Number 6

A Country Home at Roslyn, Long Island

By Robert H. Van Court

NO part of the district within reasonably easy access of New York is more popular with the owners of important estates than Long Island. Here within an hour's ride of the city is spread out a country greatly diversified offering every variety of natural beauty from the bold, rugged bluffs and rocky shores of the northern portion fronting upon the Sound through the hills and vales of the interior of the island to the southern shore where the land ends in a long succession of broad, sandy beaches. Excellent roads particularly adapted to automobiling extend in all directions and everything invites to motoring, golf and other varieties of out-of-door life. The country about Roslyn, near the centre of the island,

A delightfully picturesque half-timber house, long and low, admirably planned and designed and attractively placed

The walls of the living-room are paneled in squares of dark walnut and the ceiling beams are also of walnut

is occupied chiefly by large and very beautiful estates. Here the country is high and rolling, in many places heavily wooded and possessing many hilltops from which are to be had wonderful views of valleys and hills and glimpses of ocean, lakes and sound. Each of the country homes which have been established here is set within spacious grounds, far from the roadside, and screened by dense growth of trees and shrubbery.

The county home here illustrated is an important estate planned and built for its owner by Messrs. Walker & Gillette, architects, New York. It presents many of the aspects that make an English country home so attractive. The surroundings are such as one finds in many of the counties of England, and the architecture of the house and its service buildings, as well as the planning of the grounds, garden and other parts of the estate are in accord with the arrangement of the most modern country homes. Here surrounded by broad acres and amid lawns and a beautiful setting of hedges and shrubbery, the architects have built a delightfully picturesque house, long and low, with many gables and somewhat rambling, which has so quickly become a part of its surroundings that it is quite easy to imagine it the result of long years of gradual growth.

The paneled hall showing entrance to the living-room

The first story, with its many wings and projections, is of brick. The roof is of shingles and is brought down in broad eaves over the second story, which is of rough plaster and wood in half-timber construction. Many of the windows are arranged in groups with mullions; small panes are used everywhere and much ivy and other clinging vines are being trained upon the walls. Planting of shrubbery in the angles and at the corners of the building and about verandas and entrance-porch have done much to make the house so intimate a part of its setting.

The space directly before the entrance front has been enclosed, English fashion, by a tall trimmed hedge. This large area is graveled and affords ample room for the "parking" and turning of carriages and motors which must be planned for in arranging the grounds of a large estate in the part of a country where automobiling is so important a part of everyday life. Here abundant space is provided for the accommodation of a number of cars without danger of injury to shrubbery or flower beds. A single broad stone

step is placed before the main doorway which opens through a small vestibule into the entrance-hall, lofty and spacious, which divides the house. At the far end is built the main stairway and upon its wide square landing are several tall windows grouped together. The walls of the hall are paneled and the details of newel and stair-balusters agree in style with that of the walls themselves. Close to the main entrance of the house is a small apartment planned as a reception-room and used as such, although fitted up as a smoking-room or den. The walls are covered with a fabric of a dark tint which affords an excellent background for woodwork painted cream white and old sporting prints and colored engravings in mahogany frames with which the room is hung.

The size of this very spacious house seems to be even greater than it really is for living- and dining-rooms are placed at either side of the broad hall and wide door openings offer a long vista closing with a glimpse out-of-doors, for at one end of the living-room are windows which open upon a veranda and still farther beyond are seen the barn, shrubbery and trees. Other windows of this beautiful room open upon a terrace and still another group overlooks a garden laid out with the formality which belongs to such an estate. The walls of the living-room are paneled like the hall, in squares of walnut, and against this rich, dark background are placed pictures with gold frames and the numerous small belongings which fill the living-rooms of a large American country house. Two heavy beams of walnut break the ceiling and much of the furniture is of the same wood of Elizabethan design or of old English oak in the form of chests and coffers. A deep fireplace lined with brick and fitted with a "hooded" mantel of stone occupies part of one side of this long room and drawn up about the fireside are divans and chairs, a large study table and a grand piano.

The influence of the English period style is especially noticeable in the dining-room, for here, in addition to more paneled walls, furniture of old English pattern and a Tudor fireplace of stone lined with brick, is a ceiling of plaster modeled after the manner of the ceilings in Holland House, Hardwick Hall and other great English country houses. One side of this large dining-room is lighted by windows opening upon a broad terrace overlooking the estate, and at the other side of the room are four small windows placed in the high paneled wainscoting. In one corner is the entrance to the pantry and just before the door is placed a screen which conceals its frequent opening and closing. A tiny dining-room is planned for the special comfort of the junior members of the family and, like the main dining-room, is connected with the kitchen and service portion of the house by the narrow hallway which leads from there to the main entrance of the house. The kitchen and servants'-hall occupy one end of the building and directly over them are the servants' sleeping-rooms and their bathroom separated from the main part of the upper floor by a short flight of steps.

The bedrooms for family and guests are arranged in suites, several having bathrooms of their own. The master's rooms are placed directly over the living-room and are separated from the rest of the floor and provided with a small balcony which might be used for out-of-door sleeping if desired. Several small bedrooms are planned for the children and they connect directly with their own bathroom.

This attractive house, as has been said, is set far from

In the dining-room the influence of the English period style is especially noticeable

The entrance doorway

The reception-room

the road in the midst of its spacious and beautiful grounds. The broad driveway terminates before the entrance front in the large space provided for the convenience of arriving and departing motorists, and this graveled space is surrounded by a tall trimmed hedge of privet. The service quarters, placed as they are at one end of the house, are reached by their own driveway and entrance so that by far the greater part of the house is surrounded by the broad lawns which are spread out upon all sides. The casement windows of the living-room open into a terrace and also upon a veranda, paved with brick and surrounded by bay trees, vines, shrubbery and the other accessories which contribute so greatly to the comfort and beauty of such spots. An extensive and very beautiful formal garden has here been planned and built and careful cultivation has already produced unusually successful results, for most gardens, during their first few years, are interesting chiefly by reason of their promises of beauty and floral luxury to be achieved at a later day when nature has had time to co-operate with the art supplied by the landscape gardener's magic and skill.

Here the garden is surrounded by a clipped hedge and grass walks divide flower beds of square and oblong shapes. The beds are filled with all the old fashioned flowers which have at last triumphed over any showy superficialities and have returned to their own in American gardens. Arches are being made of privet which will mark the entrance to the garden, and of climbing roses which are being induced to mount wire frames or wooden trellises. Stone benches and other garden adornments are placed at the sides or ends of the wide grass paths. Just outside the garden hedge are massed shrubbery and various kinds of flowering plants and beyond the barn stretches away into heavier undergrowth and wooded tracts still farther away.

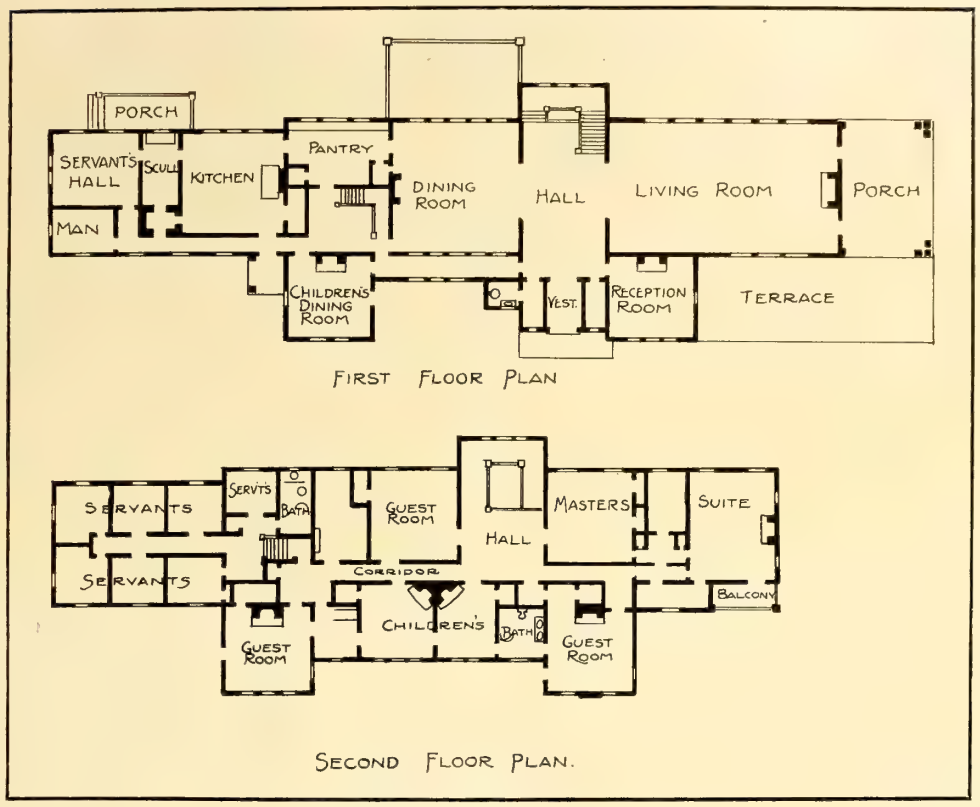
A view of the grounds looking out over the garden

The architects of a large and important country place have an unusual opportunity for planning complete and spacious grounds, giving to each department of the estate the consideration and space which it demands. A picturesque method of arranging the road frontage of a large country home would be to build a tall fence—perhaps of wire netting—upon strong cedar posts. Such climbing plants as Woodbine and the hop vine might be planted thickly below the fence and their growth during a single season would screen the wire netting from view. With this wall of solid green as a background there might be planted a profusion of such shrubs as Sumac, Elderberry and Japanese Maple, with occasionally a flowering shrub such as Lilac, Snowball or the plant sometimes known as Burning Bush. All this tall growing shrubbery would effectually screen the grounds and render the roadway past the estate particularly attractive.

The entrance to an extensive country estate may be very dignified and should correspond in style with the architecture of the residence and the other buildings upon the place. Gate lodges are considered appropriate only where the dwelling-house is far from the roadside, and where this treatment cannot be had tall piers may be placed at either side of the entrance and a gate of wrought iron hung between them. Sometimes four such piers may be used where it is desired to have smaller gateways at either side of the entrance used for vehicles, and often the piers may be connected by archways if a very formal and dignified effect be desired. The entrance may be further adorned with lamps, either as brackets fastened to the piers or as standards upon them or placed directly upon the ground at either side. Within the grounds the planning may be done to create the effect of a much greater space than actually exists, and this can almost always be done by placing groups of shrubbery to break the view that at no one place may the entire extent of the estate be

seen. Very large places are sometimes planned with a separate gateway and drive for the service quarters of the estate. Where it seems better to have but one gate and driveway it may be so laid out that a separate road will lead from the main drive directly to the servants' entrance, kitchen and stable or garage.

About the house hedges are of great value, for besides dignifying and laying emphasis upon certain parts of the place, such as the entrance to the house, they may be used as screens about minor buildings, service entrances and elsewhere in places where good taste suggests that they be employed. Nothing adds more greatly to the dignity of a country place than the grouping of outbuildings rather than the scattering of them about as is so often done. Such buildings upon many well-planned estates are so arranged that they are connected, often being literally under one roof, and the entire structure then becomes an architectural unit and may be dealt with accordingly. Where this treatment is impossible or undesirable the buildings may be placed closely together and joined or connected with hedges, panels of lattice-work, trellises or other devices which will seem to unite them.



Floor plans of the first and second stories

The garden of a country home is one of its most important departments. It is usually an out-of-door living-room and is generally placed where it has an obviously direct relationship with the house itself. Being in a sense a part of the house it should be given a certain retirement and privacy which is frequently secured by surrounding it with a hedge of Privet or Arbor Vitæ. Sometimes, if there be sufficient space, a garden may be divided into sections where in one part roses may be grown together—a water garden might be made in another division and there might even be a Japanese garden which, more than any other section, would require a definite separation from the other gardens about it. No two gardens are quite alike, for their charm lies to a great extent in their diversity. No definite rules for the making of gardens can be laid down. The American garden differs considerably from that of England and both English and American gardens are quite unlike those of Italy, where flowers are considered of less importance than hedges, trees, fountains and garden marbles. The American garden therefore has a character of its own and upon even the most formal of estates maintains an air of independence and freedom from the restraint of tradition. Scarcely anyone would think in these days of having geometrical flower-beds filled with different colored foliage plants to represent maps of the two hemispheres, and it may be said with confidence that nowhere to-day does there exist a vast checkerboard made of two varieties of the same plant, the keeping of which in a state of carefully trimmed precision required the greater part of a skillful gardener's time. The charm of the American garden consists very largely in its democracy, for the same flowers bloom in the gardens of the rich and the poor, and Nature—being no respecter of persons—showers her smiles and her favors upon all alike. Certain of our garden plants have come to us like our language, literature and customs, by right of inheritance, but others belong to us of our own right, and all are represented in the gardens which surround American country houses.

Evergreens are a very important part of the setting of a garden, and indeed of any part of a country estate, for during the Winter when the surroundings are bleak and dreary their bright foliage affords a helpful bit of cheering color when cheer in the country landscape is greatly to be desired. Verandas and terraces, which are really closely related to gardens and garden making, are more than ever important to the country home. Many houses such as this beautiful home at Roslyn have several verandas and terraces besides the entrance porch, which of course is hardly to be regarded as a Summer lounging-place. These out-of-door spaces, whether roofed or not, are really the heart of country house living, most of the year.

The lawn front of the house presents one of its most pleasing aspects

Beans are one of the most important of all the succession crops that may be planted in the Summer

Summer Work in the Vegetable Garden

By F. F. Rockwell
Photographs by Nathan R. Graves

HAVE you ever watched a heavy tide come in along a rocky shore? The big green waves are all fuss and fume; they tumble in over one another in no end of a hurry to get as far over the strand as possible—one would think that there never had been such a tide, that never again would the barren sands and the naked rocks be visible. Then after a few hours one retraces his steps to find that all the turmoil has subsided. There are the hot dry sands and the blistering rocks, for all the world as though the blinking sea had never moved an eyelash, or shaken its hoary mane in a wild determination to subdue the imperturbable shore.

There are many people whose gardening makes me think of the ebbing and flowing tide. Every Spring they are wild enthusiasm; the ground will not thaw soon enough for them; the seeds are too slow in coming up; they insist on putting their tomato plants out early enough to get nipped by the late frost. And then, along in June, you can look over the fence a dozen times a day without seeing anyone in the garden and by July the weeds are having things their own way, and never a hoe or rake disturbs the hot baked surface of the soil.

Such a garden is bound to be two thirds a failure. The momentum of the Spring start carries it along for a while, but by Autumn, when it should be at its height, there is hardly a vegetable to be gathered, and during the long Winter, when there should be a plentiful supply of many vegetables in the cellar, every blessed thing has to be bought from the green-grocer. It is not only largely a failure, but a great extravagance, for all the manuring, ploughing, spading, and work of preparation is bound to be, to a great extent, wasted.

For such a condition there is absolutely no necessity. A little forethought and systematic work—not nearly the amount required to start the garden—would have made a cornucopia of plenty where now is only a seed plot.

The Summer garden work, to be followed up effectually, must be to some extent systematized. It may be kept track of easily along five distinct lines: (1) Cultivation, (2) Late planted crops, (3) Succession crops, (4) Fall and Winter crops, and (5) Fighting insect pests. In this way it becomes a simple matter to keep track of the numerous things to be done, and to attend to doing them *on time,* which is the vitally important thing.

First of all, and generally most neglected of all, comes Summer cultivation. The gardener who persists in clinging to the outworn idea that as long as he keeps his vegetable rows free of weeds his crop is properly cultivated must be content to see his neighbor leave him hopelessly behind. To some gardeners, weeds are a blessed salvation: if it were not for the cultivation given the soil in getting the weeds out, their crops would stand still all Summer. Thorough cultivation—entirely aside from the incidental matter of re-

It is worth all the trouble and attention one may give it to bring the vegetable garden to such a delectable state as this

moving the weeds—is all-important for two reasons. It admits the air and moisture necessary to bring about those changes in the soil which release and make available the locked-up plant food. It further saves and conserves the moisture, held by the soil, which must be present to enable the growing plants to assimilate the plant food after it has become available. To express the importance of these conditions more emphatically let us use a couple of illustrations. Plant food in uncultivated soil is like raw potatoes or frozen meat; the feeding plant roots cannot make use of it until its form is changed, any more than a hungry man could thrive on the frozen meat or raw vegetables. Plant food in *dry* soil remains useless to the plants because they have no means of taking it up, any more than our hungry man could make use of the meat and potatoes even after they were cooked, if his hands were tied behind his back. It has been proved that plants take up through their roots and evaporate through their leaves about 500 pounds of water for every pound of dry material added to their weight. Your own experience tells you how important moisture is to the growth of plants, and these figures verify it.

Muskmelons should not be set out too early

"What has this," you ask, "to do with your tedious 'frequent cultivation'?" Very much indeed. Both experience and science prove conclusively that on hot, bright days the water in the soil is drawn *up* to the surface and evaporated. It is drawn up through minute tubes which form in the soil, just as it will soak up through a piece of blotting-paper if you hold one end in water. On the other hand if we keep the *surface* of the soil, for an inch or two deep, constantly stirred and dust-dry, we both prevent these moisture-wasting tubes from forming and shade the soil below, just as if the whole garden were covered over with a mulch of leaves or pine needles—and you know how nice and moist you will find the soil under a heap of leaves or even a big stone!—when everywhere else it is dust dry. So you can understand why I repeat in capitals, FREQUENT CULTIVATION IS THE MOST IMPORTANT TASK IN THE SUMMER GARDEN.

Having realized the importance of keeping up the dust-mulch, the next question is how to do it in the quickest way. And the answer is, *use a wheel-hoe*. There are many makes and

Every garden should have its melon patch

forms. The simplest of these cost only a few dollars, $3 to $5, and are capable of accomplishing a great deal of work in a way that is little more than play for the operator. Either single or double wheels may be had, but in a garden of any size the latter form will quickly repay the slight additional cost required. For the wheel-hoe there are numerous attachments the various special uses of which may be found described at length in the catalogues of the companies manufacturing them (I may say in passing that they are well worth procuring and reading carefully for the many good cultural hints contained, if for no other reason).

The wheel-hoe does not, however, obviate the use of the fingers. There will be many weeds in the rows which cannot be reached by its swift working blades, and they must be taken out, where the plants are small, with the fingers. A hint or two about this work may be of use. Try to get at it just as the soil begins to dry out after a rain and is still soft and friable, and the roots pull out easily. Also immediately previous to weeding run through the rows, cutting up as close as possible, with the wheel-hoe. There are a number of hand-weeders which are useful. I prefer the type which has a little strap over the fingers to hold the implement in place in the hand while the fingers are being used.

CROPS FOR LATE PLANTING

While most of the garden crops can be put in safely during April and early May, in fact are all the better for early planting, there are some which must have semi-tropical weather, and no danger of frost, before they will do anything at all. Nothing is gained by trying to get them started outdoors early in the season, and the only way to hasten the maturity of the crop is to get them along as far as possible indoors or in a cold-frame before setting them outside.

In this class are Pole and Lima Beans, Cucumbers, Muskmelons, Watermelons, Tomatoes, Egg-Plants, Peppers, Squash, and Pumpkin.

All the vine crops should have specially prepared hills, and it will be well worth while to take the same pains in getting ready for the Pole Beans, especially the Limas. Dig out the hill about two feet square and some six inches deep, and put in a fork-full of well rotted manure, mixing it thoroughly with the soil. Then put back enough of the surface soil to fill up the hole within, say, an inch of the top and mix into this a good handful of cotton-seed meal, fine tankage or bone flour, or a mixture of them. Cover over level with the garden surface and plant. Melon and Squash seed should be covered about half an inch deep, Beans from one to two inches. Always plant the Limas (dwarf or pole sorts) *with the eye down,* and if possible just when the ground is drying off after a rain, as they root in the soil easily and readily.

Melons, Cucumbers, Lima Beans, and even Sweet Corn we now start in paper pots (which are to be had very cheaply), and set out pots and all when the weather is warm enough. This method not only assures earlier results but overcomes to a great extent the dangers from insects and cold, damp weather incident to planting outdoors during this season.

"Giant-podded" is the best pole Lima I have grown; and Fordhook and Spicy are my favorite Muskmelons, although there are a great number of excellent varieties and one should suit one's own taste. There is a new "vineless" form which will now make Muskmelons available for the smallest gardens. Tomato, Pepper, and Egg-plants should be procured, if possible, grown in pots rather than in boxes. They are more evenly developed and will not suffer the usual "set-

The carefully tended Summer garden will produce such tomato vines as this, which may be trained against a wall

back" when being set out in the field, as the roots are not disturbed at all. A little bone flour or cotton-seed meal in the bottom of each hole when setting out will give them a strong, quick start, and should be followed, a week or two after setting, by a very light application of nitrate of soda worked into the soil about the roots, preferably just before a rain.

SUCCESSION CROPS

Crops suited for succession planting are such as have a short period of growth, like Lettuce, or those which are much better in *quality* when gathered in an immature stage of development, like Beets or Carrots. For the best results they should be planted every ten days to four weeks, according to the sorts.

The most important of the succession crops are Beans, Beets, Carrots, Corn, Kohlrabi, Lettuce, Peas, Radish, Spinach and Turnip. As the later crops of these are frequently planted in very dry weather, they should be put in deeper than the early sowing. For instance, where one inch is deep enough for the first sowing of peas, three or four will not be too deep for those planted late. Care should be taken also to *firm the seed in the soil,* in very dry weather. After sowing the seed in the furrow, tamp it firmly down into the soil with the back of a narrow hoe or the ball of the shoe before covering. Such treatment will often insure good germination where otherwise would be a failure of the crop.

Beans, to be had in the best of condition, should be sown at least every three weeks. I consider the white or golden Wax varieties the best in quality and the best strains are not susceptible to rust. Be careful not to plant too many at one time; a very short row of Beans will yield an ample mess for dinner.

Beets, Carrots, Turnip and Spinach need not be sown so frequently. It will pay to plant at least three times—early in April, in May and in June, the last for late crop for Winter. Columbia and Crimson Globe are fine Beets for Summer or Winter use; Coreless and Danvers are good Carrots, and Amber Globe, with me, is the best flavored Turnip. In place of Spinach, I now use Giant Lucullus Swiss Chard almost entirely, as most of my customers prefer it to Spinach and it can be cut any number of times during the season.

CROPS FOR FALL AND WINTER USE

No garden opportunity is so often neglected as that of growing supplies of Beets, Carrots, Turnip, Parsnips, Salsify, Cabbage, Brussels Sprouts, Cauliflower, Celery and Lettuce for late Autumn and Winter. The Parsnips and Oyster-plant (Salsify) should be sown as early as possible, but early June is not too late. The Beets and Carrots should be put in during June, the earlier the better. July will be right for the Turnips, *but firm well in the soil.* The Cabbage group should be sown about June first, kept watered and cut-back (by trimming off the tops two or three times) to induce stocky growth, and set out into the permanent positions during July—which gives an opportunity to use for them the same ground that has already been used for early Beets, Lettuce, Radish, Peas, etc. For Celery, if you did not sow it yourself early in April, you will have to go to the florists, but the plants are not expensive. Lettuce should not be sown until the last part of July or the first of August. Select a place protected from heavy rains, and work up a nice, fine, smooth seed-bed—a few feet square will be ample—and sow thinly, giving the bed a thorough soaking the day previous. Rig up overhead a light framework that can be covered with old bags, carpets or a sheet, if very hot, bright weather is encountered, so that the bed may be kept partly shaded. As soon as the

(*Continued on page 225*)

Beans may now be started in paper pots and set out when the weather is warm enough

Plant pole beans just when the ground is drying off after a rain, as they root in the soil easily

ROCKWORK FOR THE HOME GROUNDS

THE illustrations shown upon this page will suggest to the homemaker, who is interested in the lawn and in the garden, the value of rockwork to the landscape of the home grounds. Above one sees how a jumble of field boulders has been converted into an attractive rockery that would prove an interesting feature for any large lawn, and the illustrations below show how interesting a patch of fieldstones can be made by judicious planting. Rockwork is within the means of everyone and it contributes a striking note of interest to any planting scheme with the lawn.

The street front of the interesting and well-designed cottage type residence of Mr. William F. Russell, at Summit, New Jersey

An American Cottage of English Type

By Berwyn Converse
Photographs by T. C. Turner and others

MUCH of the domestic architecture of England seems to be the direct following of the work of the builders of centuries ago. Architecture in England never reached quite the the low estate to which it descended in America some thirty or forty years ago, and the renaissance of good taste, when it came, found so much of the old work still existing that the revival and application of correct standards of building and decoration was accomplished much more easily and more rapidly than in this country. It would be difficult, perhaps, to define the "modern English style" or to say just what the term implied, but, broadly speaking, it may be said to embody a certain balancing of mass and a symmetry in planning ornament and fenestration, combined with a quality quaintness which renders formality delightfully informal.

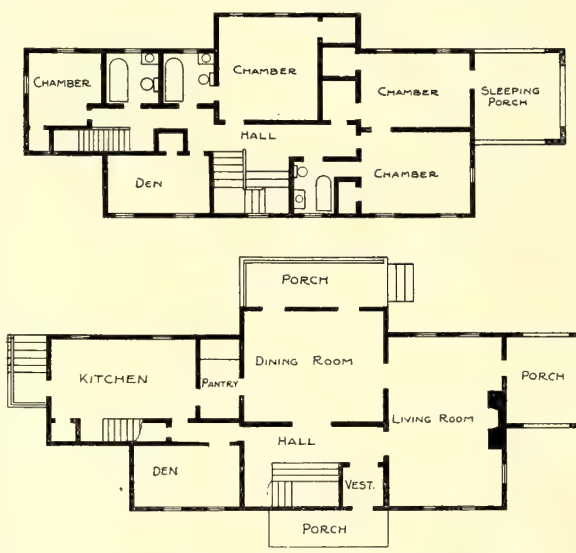
Something of this spirit is expressed in the home of Mr. William F. Russell, at Summit, New Jersey, designed by Benjamin V. White, architect, New York. A home in the country more than anywhere else should be planned to carefully adapt it to its location and here the site consisted of a broad, shallow plot sloping backward rather abruptly from the street to a stretch of woodland with some fine forest trees. This afforded a somewhat ample and generous setting for what has proved to be a particularly attractive and "individual home." The place as it has been worked out, provided for two fronts—one facing the street and one facing the woods just beyond the house. The street

The Winter aspect of the house is also pleasing

The hallway

The living-room

front includes the main entrance, of course, and presents the formal appearance expected of the street front of a dignified suburban home. At the opposite side of the house a broad terrace overlooks a stretch of lawn which extends to the edge of the woodland. The house is built of stones upon the usual framework of metal lathing. Here the stucco is extended down to the ground over the foundation of concrete which gives rather a more solid and substantial effect than if the foundation were allowed to appear. The roof is of shingles with the gables "clipped" and here, as at the eaves in every part of the house, the shingles have been so applied that they present the appearance of a roof of thatch and the use of casement windows further heightens the old English effect. A wide, low roof or hood shelters the entrance and this hood, as well as the roof of the house itself, is of a deep, dark red. The walls of the roughened stucco are of a rather dark gray and the exterior trim, including the trellises and the vertical bands at the corners of the house, are of a dark green. One wing which contains the kitchen and other service quarters is balanced at the opposite end of the building by a veranda above which is a sleeping-porch, screened and partially enclosed. The chimneys are so placed that they do not break the long line of the ridge of the roof which curves downward at either end, and back of the house is a background of trees, which forms the most satisfying of all settings for a suburban home.



Floor plans of the Russell house

The floor plans carry out the idea suggested by the two façades of the house and the rooms are so planned that the most attractive views are had from the living-room, the dining-room and the veranda rather than from those parts of the house which are not so constantly used. This reverses the usual arrangement where the principal rooms face the street regardless of more attractive outlooks in other directions. We know of one very costly countryhouse where by far the most attractive view—a stretch over miles of beautiful meadow to a range of mountains—is from the window of a butler's pantry. The main entrance of the Russell house is into the main hall, which also contains the staircase, lighted by a window upon each landing. Directly ahead is the dining-room, to the left is a small library or den and to the right is the living-room, which is delightfully spacious and planned to receive sunshine during the greater part of the day. Here is a group of small-paned casement windows facing the approach to the house and another group overlooking the lawn. One side of the room is taken up by fireplace and mantel and two windows, one coming to the floor and opening upon a veranda which gives a glimpse into the woods which surround the house. The

(*Continued on page 228*)

Living-room fireplace

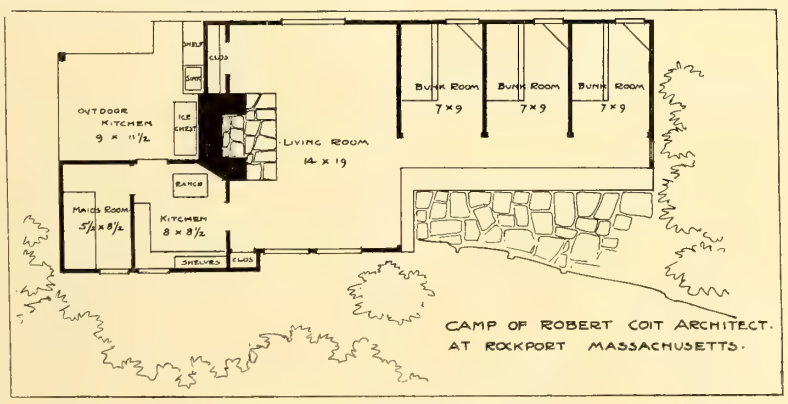
The dining-room

Set in the midst of a clump of pines, this delightful camp became a permanent Summer home, unique in its arrangement

A Camp Experiment that Became a Permanent Summer Home

By Helen N. Marion
Photographs by Mary H. Northend

SOME years ago, Mr. Robert C. Coit, of Boston, purchased several acres of land at Rockport, Massachusetts, with the idea of erecting here a Summer home. The site was ideal for the purpose. On all sides stretched meadows and woodland tracts, and at no great distance was the ocean, affording facilities for bathing. Undecided as to just what sort of dwelling to erect, Mr. Coit determined for the first year to try camping out, and thought of purchasing tents and pitching them for living purposes. Before the Summer came, however, he changed his mind about the tents, and instead a rough shack or camp was constructed. The pleasure derived from this substitute home was so great that the members of the family agreed that they would far rather have the shack permanently than any other dwelling, and, in consequence, it seems destined for long, continuous use.



The floor plan of the Coit camp

It is an ideal little home in its way, combining in its construction several interesting features, and at the same time is wholly commodious and comfortable. It was designed by the owner with little thought for architectural effect, and it presents an exterior wholly in harmony with the natural charm of the surroundings. It is built of rough boards, with an overlayer of tarred paper on the roof, and the roof slants at either end to shed rain readily and to prevent it from soaking in.

At the front, two broad steps lead from a clearing paved with stones picked up on the premises, and afford access to the camp interior. The bedrooms occupy the front ell, being screened by burlap curtains, and they are protected in stormy weather by a waterproof sail, which is supported when not in use on forked sticks at the outer edge, and affords a covering

The living-room portion of the main room of the Coit camp has a great boulder fireplace at one end, giving it a sense of permanency

from the sun for the broad entrance steps, which serve as a sort of open air veranda, where members of the family frequently congregate. Windows at the rear of the ell render the bedrooms light and airy, and the end chamber boasts in addition a large, casement window at the side.

Next to the bedroom ell, and built at right angles to it, is the main portion of the camp, lighted on all sides by quaint diamond-paned windows of the casement type that swing outward. At the front is the combination living-room and dining-room, overlooking a great pine grove, and characterized by a spacious fireplace built of fieldstones secured on the estate, and beyond is the kitchen, the servants' dining-porch, with running water at one side, and the servants' sleeping apartments, and toilet.

The main room is most attractive in its wood finish, the soft brown of the stain harmonizing admirably with the gray of the fireplace and the deep green of the nearby woods, of which it seems an intimate part. Built-in shelves for books and other things are features of the living-room portion, while in the dining-room division a built-in cupboard for china, adds distinction.

The kitchen is abundantly supplied with shelves conveniently grouped about, and the servants' quarters are as comfortable in their arrangement as the main apartments.

One of the main bunkrooms

An outside bunkroom

The vista from the porch towards the grove of pines in front of the Coit camp is delightful

Board floorings throughout the house prevent dampness, and the interior partitions are of carefully matched boards.

An annex, fitted up with bunks, and protected at the front with the same waterproof sail arrangement as the bedrooms and living-room of the camp proper, stands at one side of the main camp, and is used as a guest house. Casement windows render it wholly light and airy. It is finished in the same manner as the main dwelling, and commands the same picturesque outlook. The cost complete of the camp and the annex of bunks was exactly five hundred dollars.

The joy of living in such a house is that derived from the kinship with nature which a dwelling of this sort makes possible, a contact with the outside world of growing things, of trees, shrubs, flowers and vines, of birds and of blue skies and white clouds, even of the Winter's landscape, a contact that must finally exert upon anyone an enormous influence. Rainy days may come, but who has not discovered how glorious the countryside appears through the veil of the storm, and in its freshened beauty afterwards? With a roaring blaze in the huge fireplace of this camp, around whose crackling logs the family and friend gather, and from their vantage point of comfort gaze out on the changed landscape, who would say a day like this was gloomy, who could find monotony in the hour, or for the moment, welcome change?

The main bunkrooms

Corner of the kitchen-porch

The Gar

THERE are few features in the garden of flowering plants that are
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den Arch

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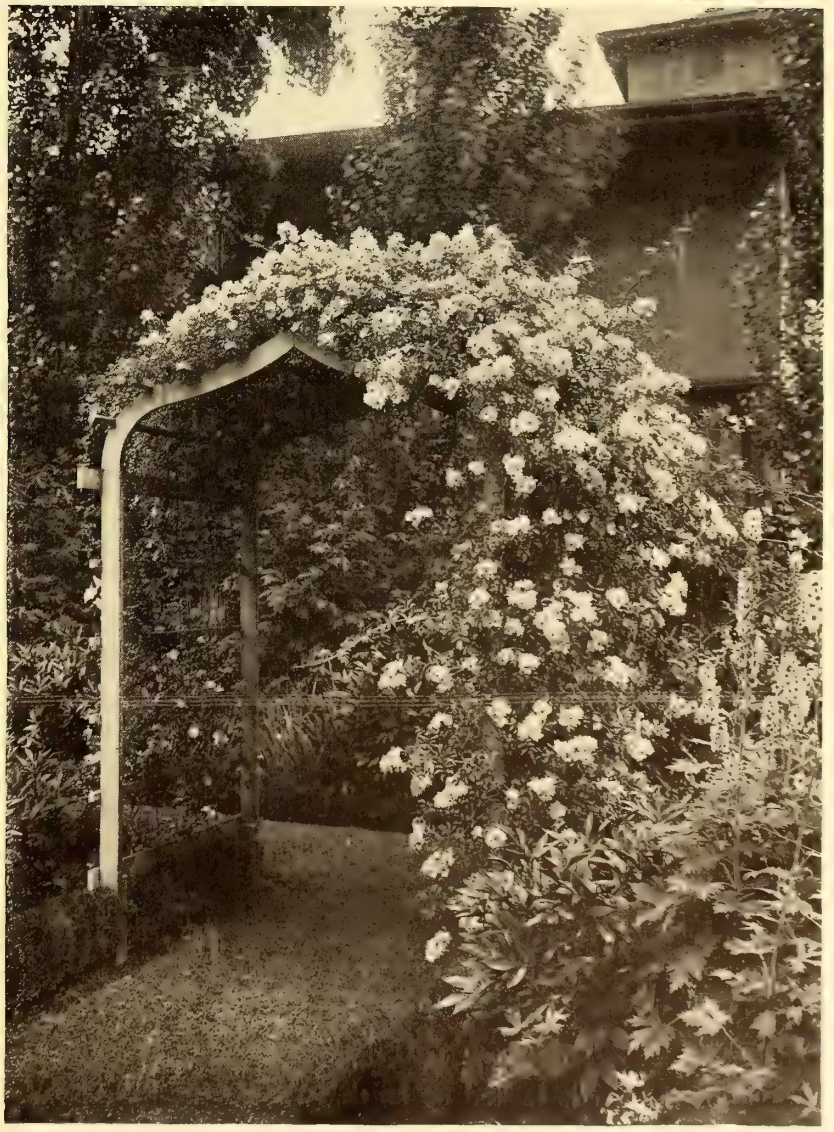


The Garden Arch

THERE are few features in the garden of flowering plants that are more deserving of attention and less deserving of the neglect they suffer, than garden arches. Perhaps garden beginners overlook the possibilities in this direction. It is not enough to plant flowering things, have them spring up and bear blossoms to constitute a garden. A garden is something more than a display of a number of plants. It is a creation of man's ingenuity in devising ways and means of intensifying the beauties of plant growth by selection, arrangement, color, choice, contrasts and design. Thus it happens that after a time every garden-maker instinctively turns his attention to the structural side of gardening. Perhaps his first season has found him content to plant a bed of things and watch them grow, rejoicing and finding satisfaction in their reaching florescence unretarded. But later he will wish to make a "house of flowers" as it were, even to imitate some of nature's plant arrangements. He will wish to construct arbors, mazes, formal and sunken gardens; he will wish to sow a corner with old-fashioned flowers which shall fill the vista with a blaze of unpatterned gorgeousness, but if he finds that the bit of ground at his disposal is not sufficient to permit these experiments to any extent, he will still gain satisfaction in constructing a garden arch such as is shown in any of the illustrations on these pages. An examination of them will reveal possibilities along this line that will prove inspiring to the garden-maker.

Here one sees moored to her little dock the *Driftwood*, the house-boat run by automobile power. The iron frame of her roof-garden is covered with a canopy in Summer. In passing under low bridges this frame can be folded flat to the deck

Running a Houseboat by Automobile Power

By Robert H. Moulton

MOST owners of houseboats who are also the possessors of automobiles have no doubt often wished, when moored at some spot which particularly invited a land ride, that they had their cars along. The only way they could see to make use of the machine while on a water cruise was to have it run up to some designated stopping place, a plan which is nearly always inconvenient and often impracticable. It probably never occurred to them that they could not only carry the car along on board the houseboat, but actually make it serve as a power plant to run the craft. This plan has been successfully carried out, however, by a Chicago man, whose experiment will, no doubt, lead to the building, or equipment, of many other auto-houseboats. Any houseboat that has an aft deck sufficiently large to accommodate an automobile, and a couple of paddle-wheels, can be fitted up to run in this manner. All that is necessary is to fit spurred sprocket wheels to the hubs of the car's rear wheels and to key similar but larger ones to the axle of the paddle-wheels. Connection is made between them by means of chain link belts. Then when the rear axle of the car is jacked up so that the driving-wheels are clear of the deck, and the motor started, the boat will glide along as easily as could be wished.

The *Driftwood*'s gang-plank

Furthermore, it is possible to get much greater speed out of the houseboat in this manner than is usual with such crafts. In ordinary waters the ingenious owner of the houseboat run by automobile power here shown has made his boat maintain an average speed of six miles an hour, which is certainly going fast for a houseboat. And this has been done without the slightest injury to the automobile, for the owner has now used it in this way for more than a year and finds it just as good as ever. When the engine of the car is turning the paddle-wheels it runs as regularly and smoothly as if the auto were gliding over asphalt pavements. A couple of grooved runways guide the automobile from the shore to the gangplank, and thence up to a spot midway between the paddle-wheels. The mechanical operations necessary to transform the automobile into a marine engine require only a few minutes.

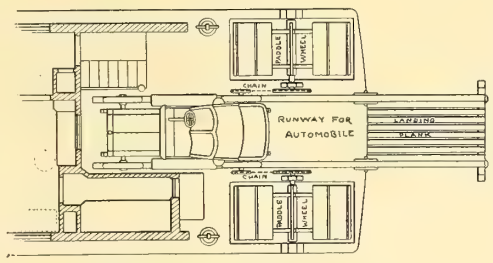
By means of an ingenious device it is possible to steer the boat either with the rudders, of which there are two, each six feet long and two feet wide, or the paddle-wheels. The paddle-wheels are so constructed as to be independent

Spacious salon of the *Driftwood*

Companionway of the *Driftwood*

of each other, and when they are connected with the automobile the emergency brake of the car is disconnected from one driving-wheel and the foot brake from the other. In this way one of the paddle-wheels can be revolved while its opposite remains stationary, or both can be turned at one time. If the port paddle is turned while the starboard is held still, the bow of the boat is shoved around to starboard, and vice versa. There are also two driftboards, each ten feet long and three feet wide, to counteract the tendency of any flat bottomed boat to drift sidewise.

The *Driftwood,* which is the name of this remarkable craft, is not only unique in its mechanical arrangements and innovations, but is an example of marine architecture, both interiorily and exteriorily, such as is seldom seen anywhere in the world. It has every convenience of a modern steam-heated five-room apartment, including hot and cold water, refrigerator, gas stove, roof-garden, sun-parlor, private back porch, hardwood floors, laundry, clothes drier, and janitor service. There is also a gas-making machine which supplies gas for illumination and cooking, and a water-filtering system which will clarify the water of any river so that it may be used for lavatory and cooking purposes, while a water filter still renders it drinkable, with the quality and clearness always unfailing.



Plan of automobile attachment

The houseboat measures 75 feet over all, with a width of 16 feet 5 inches. These dimensions were decided upon by its owner after he had made an examination of all the canal locks in the United States, for he wanted a boat which would pass through any canal in the country. The house proper is 50 feet long and the full width of the boat. The boat weighs thirty-six tons and draws sixteen inches of water. Its hull is made of tank pine and Oregon fir, triple caulked, and is so dry inside that it is actually dusty.

A unique system of ventilation which keeps a current of air constantly passing through the hull prevents even the slightest suggestion of dampness. The house is divided up into a kitchen, three sleeping-rooms, bathroom, and combination living- and dining-room.

The owner of the *Driftwood* has put the practicability of the houseboat for living purposes to a thorough test. Last Summer and in the early Fall he had the *Driftwood* moored on Lake Michigan, just off the Chicago Yacht Club, and there he slept every night. Later he had it moored to a more protected spot in a boat yard on the North Branch of the Chicago river, and on it he lived during the entire Winter, happy in his floating bungalow.

This shows the *Driftwood* in very rapid motion under automobile power

This shows the spurred sprocket wheels on the paddle-wheel axles

The open air life throughout the Summer time is what every American boy should be given an opportunity to enjoy

Boys' Camps

By Mary H. Northend
Photographs by the author

SUMMER camps for boys represent a feature of the culture and refinement of modern youth that is equally important, in proportion, with their educational instruction. A decade or so ago these camps were looked upon with disfavor by the majority of people, who viewed them in the light of a fad that would in a few years at the most outlive its popularity. But there was a side to this so-called fad that these same people failed to consider seriously, but which almost immediately manifested itself, and year by year grew in importance, until there was no denying its advantages. This was the opportunity for physical betterment that the open air life and regular exercise afforded, and which, more than anything else, has helped to make the Summer camp a permanent institution.

The idea of its formation, in some instances at least, was the outgrowth of the Summer homes of large families of boys, whose parents were quick to see and understand the elevating tendency of outdoor life. In not a few cases the home became a paying camp, open to other boys, and when once the success of this home camp project became assured, it was adopted as a business venture by any number of men and women, some of whom maintained Winter boarding-schools and were, in consequence, especially fitted to take charge of children. Under the supervision of such instructors, the benefits to be derived became more and more pronounced, and the project, begun in such a simple way, rapidly developed, with far-reaching results.

Considered thoughtfully, one cannot wonder that this is so. The camp offers to the boy the advantage of being under the daily supervision of competent physical instructors, whose duty it is to promote his health, and it affords to him the opportunity of enjoying a care-free open-air life for two months with boys of his own age. In addition, he is provided with numerous opportunities for healthful sports and useful occupations, he is rested and stimulated, as well as nourished with wholesome food at regular hours. Also, through the lessons learned here, he acquires a self-reliance that serves him in good stead in later life.

No parents for the sum of the tuition fee—varying from $150.00 to $200.00—could begin to provide at home for their boys the facilities, together with the appurtenances, for sports and instruction such as are provided at camp,

and then, too, parents would not always be willing to spend a Summer in the locality adapted for such a life. So, all in all, the Summer camp fills a long-needed want in the realm of boyhood.

All these camps are located with a view to the natural beauty and healthfulness of their surroundings, and as a result they are chiefly found among the mountains, close to the shores of lakes or rivers. Some few are inland, but these are in the minority, for the best liked diversions of camp life are the water sports, which demand a nearness to some body of water. All are remote from the pretence of conventionality, with the open face of nature as an inspiration and a comrade, and amid the quiet hills and vales the boys obtain a fund of health and strength sufficient to draw upon during the strenuous Winter school days.

The boys have built their own diving stand

The rule of the average camp demands that a regulation camp costume be worn, thus tending to create a democratic spirit, and, too, where a certain color is adopted, and the initial letter of the camp name adorns a sweater or a blouse, not a little camp pride and sense of indivuality is the result. The usual camp requirements include a heavy sweater and two flannel shirts, or blouses, two sleeveless jerseys, and a cap, also two pairs of khaki trousers, one pair of flannel running pants, two pairs of heavy woolen stockings, heavy shoes for mountain climbing, and two pairs of tennis shoes. Also a simple suit for Sundays or exceptional entertainment. Besides his wearing apparel, each boy is generally asked to bring a rubber blanket, two pairs of heavy colored blankets, a pillow, two laundry bags, and the usual toilet articles, towels, etc. A rubber coat is optional in most camps, but if he has one he can bring it, and he can also include, if he wishes, rubber boots, bathrobe, baseball suit, bat, ball, gloves, tennis racquet and balls, fishing tackle, paddle, hunting knife, hatchet, camera, musical instruments, hammock, small mirror, a few books and games. Each article has to be plainly marked with the owner's name in full. Since the boys range in age from eight to twenty years, according to the age limit set by each camp, the re-

Mess-time, showing the line of happy, hungry youngsters who are spending their outing time in the camp for boys

All the boys in camp are taught to swim and soon lose any fear of the water

quirements differ accordingly, and one finds a little of everything in some of them, where the ages run from say ten to sixteen.

The religious life is never over emphasized, and there is but little sectarianism. Sunday, as a rule, differs from other days in that camp costume is doffed and a simple suit is donned, for church services, either at the nearest church or in the form of simple religious services at the camp itself. The rest of the day is often devoted to reading, writing letters, a short walk, and a talk on some interesting topic, after supper, or, in some camps, a row on a nearby lake is enjoyed before bedtime. Although camp management does not encourage actual study, all of them are prepared to furnish competent tutors for boys who are desirous of making an advance in some special line of study, for which assistance an extra fee is charged.

Although these camps are to be found north, south, east and west, doubtless those in New England are typical of the prevailing manners and customs of the average camp. No state in the Union is more favorable for camp life than the state of Maine, always a synonym for the "call of the wild," so naturally this state can lay claim to some of the most attractive camps for boys, from the point of beautiful surroundings, far from the heart of civilization. New Hampshire, too, is ideal for the purpose, and throughout its hills and vales, and bordering the shores of its lovely lakes, several excellent camps are to be found. Likewise, Massachusetts and Vermont can lay claim to several finely equipped camps, and the project, in this section of the country, is broadening each year. The methods pursued in each of these camps differ in detail from the rest, but the fundamental principles of all are the same.

The larger camps are often divided into two distinct camps, one for the older boys and one for the younger boys. Each is considered as a separate establishment, and each is rigorously maintained in every respect wholly distinct from the other. Besides the owners of the camp, who devote their entire time to its interests, there is generally a superintendent and his wife who oversee and care for the several features of the camp, also a head councilor, especially gifted in dealing with boys, and a councilor for each tent. The councilors are always chosen for their fitness in some special direction, as well as for general culture and ability, being carefully selected from well-known schools and colleges. The value of their companionship is inestimable, sharing as they do with the boys all the pleasures and duties of the camp life, incidentally winning their confidence, and helping them with advice and assistance.

In all camps the boys literally live outdoors. They sleep in tents, eat in tents, and some even sleep on cot-beds beneath the stars. Save on rainy days, the rest hours and handicraft lessons—comprising a feature of several of the camps—take place outdoors. The tents are generally of khaki, of uniform size, opening at both ends and absolutely waterproof, with board floors well off the grounds. In some instances these tents accommodate four boys, in others, five boys. The dining-tent is a separate feature, sufficiently large to accommodate the entire camp.

Many of the camps are now equipped with modern plumbing and sanitary systems and supplied with running water from pure mountain springs, though some few still depend on the well for their water supply. Where the well is the means of supply, the boys are obliged to carry the water they require to their tents, and in such instances, just after breakfast, what is known as the pail-brigade is formed, each boy setting forth, pail in hand, for the well, where a choreman fills his pail with water.

Besides the tents, each camp boasts a building, sometimes of rustic design, and generally containing one main room, which is always characterized by a great open fireplace.

This room is invariably provided with a piano, shelves filled with books and magazines and a supply of games, and here on stormy days supper is frequently served, after which the boys are free to cluster about the open fireplace and to make merry as they see fit.

Generally, a fleet of rowboats and canoes is a feature of the camp, and sometimes motor boats are provided to supply swifter locomotion and to tow long chains of the smaller boats on extended trips. War canoes of varying sizes are likewise frequently supplied, affording opportunity for interesting crew work.

The different sports indulged in are no doubt to the boys the most interesting diversions. These are carefully limited as to time, and care is taken that no boy over-exercises, or undertakes feats for which he is physically unfit. Swimming, diving, rowing, and paddling are among the most attractive features of camp life, but no boy is allowed to use a canoe until he has passed a definite swimming test. Such regulations are enforced regarding all water sports as have been found necessary for the absolute safety of the boys.

The usual rising hour is 6:45, and a half hour later the boys gather round the long table in the breakfast tent, where they soon make away with oatmeal and cream, eggs and corn muffins, coffee or milk, as preferred. After breakfast the tents are put in order and the boys are free for the day's enjoyment. Baseball or tennis practice, swimming, diving, etc., occupy the time until dinner, after which a rest hour is in order, during which the boys can read or write, or go to their tents to rest, as they wish. The afternoon is devoted to various sports or sometimes a walk through the woods, affording to those who are interested in nature study an opportunity to study birds and flowers. In the evening, games, reading, music, and other amusements pass the time all too quickly until nine o'clock, when the boys repair to bed. In some camps on very warm evenings, supper is served out under the pine trees, and if it be moonlight, a row on the lake is permitted.

Horseback riding is a feature of most of the camps, and frequently riding squadrons are formed that exercise several times weekly, affording any amount of fun for the riders. In addition, several times during the season, the entire camp takes to the water, and in small boats towed by motor boats, journey several miles down a lake or a river to play ball with a rival team.

Side-trips to the nearest village, or drives through the woods each week, have come to be a regular pastime of several camps, and they are events to which the boys look forward, for in great, high wagons, each drawn by four strong horses, they are at liberty to make merry with songs and laughter. Camping trips of several days duration, sometimes to neighboring islands, and often to a distant mountain, are regular features of all the camps, and on such trips, each boy has to carry his personal outfit, help pitch tent, make fires, prepare food, wash dishes, and help in all the other duties attendant on life in the open. Needless to say, such trips are star days in the lives of the boys,

(*Continued on page 228*)

These little men are taught to cook and they love to show their skill in the camp culinary

This portable house serves as a permanent home

An all-the-year-round portable bungalow

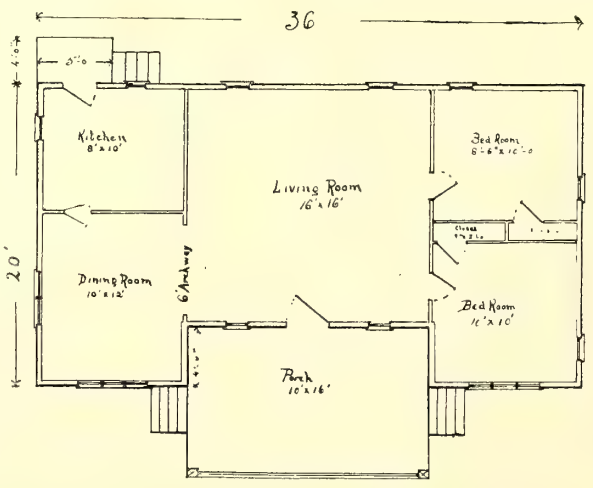
Portable Houses for the Long Vacation

By Robert Leonard Ames

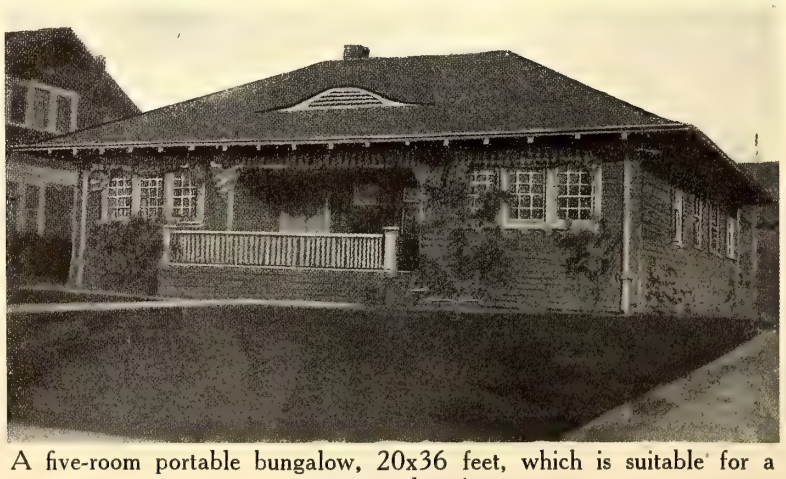
A VACATION of more than a few weeks in the hills, woods or at the seashore, off the beaten track, should hardly be planned without carefully looking into the matter of the portable house as a possibility of a vacation home. Let us imagine a tiny cottage planned with especial reference to the requirements of those who are to dwell in it, built upon the spot, whether in the mountains, the woods, or by lake or ocean, which seems most attractive. Then let us picture the interior arranged with the household fittings and personal belongings which one finds most necessary, and a veranda spread with rugs and having a hammock, cushions and wicker chairs and tables where the vacation days may be enjoyed. When all of these alluring possibilities have been grasped let us imagine the same house with every detail of furnishings placed in another wholly different setting, where a new phase of Nature's wonders seeks acquaintance, for all of these opportunities are within reach of the man or woman who makes use of the wonderful contrivance known as the portable house.

The term has two separate and distinct meanings, or possibly it would be more accurate to say that there are two classes of portable buildings, each of which has its own place and use. One of these is the house which is designed and made in a factory, usually from stock plans, shipped to the locality where it is to be used and set into place upon foundation or underpinning more or less solid and substantial so that the house may remain permanently in one place. The other variety is so planned and constructed that it may easily and quickly be erected and quite as easily taken apart for removal to another site, and these removals may be as frequent as desired.

Portable houses of any kind were but little known or used prior to the World's Columbian Exposition in Chicago in 1893. The Exposition, it will be remembered, was some distance from the civic center and living quarters of any kind in the vicinity were difficult to obtain and were held at a high premium. This resulted in the use of a great number of portable buildings of both types, most of which were used as homes, although many were placed within the grounds, where they were utilized, for the most part, as minor service buildings. Since that time the designing as well as the construction of portable houses has been vastly improved and developed and these changes have resulted in the serviceable and often really beautiful portable buildings which are obtainable to-day.



Floor plan of portable bungalow illustrated below



A five-room portable bungalow, 20x36 feet, which is suitable for a permanent location

One will readily realize the value of the house which may be easily moved, to a family planning a vacation of considerable length, for it offers comfort and convenience at small cost and with complete independence of boarding houses or hotels. The houses are made in a considerable variety of style and material and in a wide range of sizes, so that a vacation home may be either a single room or a house of five or six rooms or even more, and provided with a veranda and

every essential detail of home comfort.

The construction of the houses chiefly used is exceedingly simple. The building, of course, is of wood throughout, with an inner lining of wood in addition to the outer walls, which are usually of clapboards. These walls, as well as the floors, ceiling, and roof, are made in sections, small enough to be handled without difficulty, and strongly held together with bolts and other devices of metal. There are many well-known firms manufacturing these portable houses and one has but to select his cottage from a catalogue which may be had for the asking. A few weeks are usually required for the proper finishing and shipping of such a structure and this allows for including such details of painting, finishing and arrangement of rooms and partitions as the purchaser may desire. When received from the factory the sections will be numbered—floors, outer walls, inner partitions, roof, and framework will be so labeled that the building may be erected in a few hours by almost anyone who will follow the printed instructions and the carefully drawn diagram which will be sent with the house. In this connection it is well to state that freight charges are very low for shipping the sections, and it does not require skilled hands to set them up.

A portable cottage like this is just the thing for a Summer outing in the lake district

Unless the building is to remain for a long period in one place it will hardly be necessary to use posts or piers as a foundation. The ground may be leveled and the sections of the floor placed upon stones or blocks and securely fitted together. After the floor is solidly in position the walls of the house and the interior partitions are set up and fastened together, not with nails, but with "key bolts" which are secured with one blow of a hammer. The floors and walls being in place, the sections of the roof are set in position and then the moldings under the eaves and about doors and windows are fixed into place, together with such details as steps and the railings about verandas. The erecting of such a structure is not at all difficult, but care must be taken that the joints are closely and firmly united or the building will not be weatherproof and there may be trouble where the house has been taken apart and is to be re-erected in some other place. A house of this type, particularly when carefully set in place and built upon piers or posts as a foundation, will last for many years, and any number are in use upon lakes or seashore, or upon mountains where they have been occupied each year as vacation homes. Many more have been used year after year, but in different places, for their owners have found no difficulty in taking the houses apart and rebuilding them in different localities.

There is still another type of house which may be easily and quickly moved. This variety has a floor and a strong framework of wood upon which walls and roof of very strong canvas are stretched. This kind of house is, of course, not nearly as durable as that built of wood, but it may recommend itself to many by reason of its lower cost and the even greater ease with which it may be moved about. In houses of this sort the divisions between the rooms are also of canvas, and as there is no glass in the windows the openings are merely screened with wire netting and protected by awnings or "flaps." This house is somewhat of the nature of a tent, but is much more comfortable and durable, and yet is moved with almost as much ease.

The plan of the portable house to be really successful should be quite simple. It must be remembered that walls and roof are not heavily built nor with the type of construction which is used in erecting an ordinary dwelling. The floor plans should therefore be strictly rectangular, with no projections excepting an additional room, a porch or veranda, or any extension such as may be complete in itself. The roof lines also should be plain and simple, for without "furring" such as is used at the joints of an ordinary roof it would be impossible to prevent leaks if an irregular roof plan were followed. The size of the house must be governed, of course, by the number of people who are to live in it. The kitchen is so often a separate or semi-detached building that it need hardly be counted as a room of the main structure, which will therefore be devoted to a living-room and the necessary bedrooms. For a family of ordinary size a house of four rooms might be sufficient. This will allow for a combined living- and dining-room and for three sleeping-rooms. The kitchen or "cookhouse," which will no doubt, be a separate structure, should be so planned that

(*Continued on page 228*)

The portable house is well adapted to the sea-side

A portable house placed in a wooded locality

This is the curious little animal that wreaks such havoc with our lawns. Without sight he finds his way underneath the best laid sods

Moles and the Lawn

By T. C. Turner
Photographs by the author

ONE of the greatest charms of the country or suburban home is its lawn. Without Nature's own carpet the best planned house in the world would lack in the full measure of attractiveness despite all the beauty that the cleverest architect might put into its construction. A good lawn well kept is not one of the easiest things for its owner to have. Many are the troubles that beset the ingenuity of the homemaker who strives with the proper up-keep of his lawn. Dandelions must be carefully watched and prodded out, crab grass must be subdued, and worms kept under control as far as possible. These and many other obstacles of a minor nature must be watched day by day if one is really to make a lawn to be proud of. The excellent article on "How To Make Good Lawns," page 100, AMERICAN HOMES AND GARDENS, March, 1912, had to do with the planting and seeding of the lawn, whereas the writer of the present article would call attention to one of the greatest menaces to the stretch of green, the turf-destructive mole.

Of all the plagues that beset the lawn the mole is probably the greatest. This veritable "pestilence that walketh [or to be more correct one would say scrapeth] in darkness" makes its appearance at most inopportune moments, dooming every blade of grass above his miniature subway. In the short space of a night he will scrape a trench just below the surface, often as much as fifty yards in length, and leave above it the telltale ridge of earth in which the roots of the turf are left to die under the hot Summer sun. No quarter of the world is entirely free from the trail of the mole, but America is blest or cursed with several varieties all to herself. All are alike in their methods of life and their destructiveness of lawns and pastures. The common mole of the east (*Scalops aquaticus*) is the most widely known. The mole prefers to do his burrowing when the rain has made the earth soft and brought his food, the worm, near to the surface. For so small a beast he accomplishes wonders. Blind, not often more than five inches long and two inches in diameter, yet he will raise a furrow of earth to the surface that will kill every blade of grass above it, for that season. Of course, the moles can be got rid of, but seldom can an estate be thoroughly cleared of them without the patience and the knowledge which a trained mole trapper brings to bear in the work. The Department of Public Parks, New York city, has found it necessary to retain the services of one, whose forefathers have followed the craft for generations. I have the figures of one of them, that are surprising. Destroyed at Greenwood cemetery, Brooklyn, 2,884; on the William Rockefeller estate at Tarrytown, 1,642; in Central Park, 1,462, etc. Careful and quiet observation, and great patience, are the essential means for use in getting rid of this pest. Make a rough plan of the land showing existing evidences of the mole's presence; add to it from hour to hour the new indications; watch the directions of the burrows and the spot it goes back to. Some burrows will go straight, some various ways, but all will go back to the headquarters of the particular mole who is working in them. The next stage is to watch the usual hour when the mole leaves his home and goes out to feed. If you do this very carefully you can see him shift the newest casts, as he passes. The most likely hours are between six and seven in the morning, about noon, and between four and five in the afternoon, but there is no certainty. If he has been very lucky in his hunt for food he may lay up for an entire day without leaving his nest. When the home has been determined it only remains to set the traps. There are many kinds of traps on the market, but to my mind none of them do the work so effectually as the professional wooden trap, particularly if one wishes to save the skin of the mole, and the skin when properly treated has value. The hide is often lost by the iron "spike trap" injuring the body, a result entirely avoided by the wooden trap. Professional trappers are not only looking to catch their game, but to have it in good condition. The trap, as may be seen in the illustration, is a wooden cylinder, about six inches long and three inches in diameter, the thickness being about one half of an inch. A portion of this tube is cut out at the center, about three inches long and one

Mole trap—open

Mole trap—shut

wide. At a distance of half an inch from each end of the cylinder a groove is made inside of the tube for the purpose of holding the wire nooses. These nooses are admitted through holes in the top of the center of the trap and joined outside of the trap to a piece of strong cord, which in turn is fastened to a strong spring at one end, and at the other end through another hole to a trigger inside the tube. This trigger is a triangular piece of wood, the thin end of which is pushed up into the same hole that the cord comes down and the thick end of the triangle partly fills the diameter of the hole. The run of the mole is then opened for a sufficient length to let in the trap; the spring is lightly set, and the tube placed so that the hollow of the trap corresponds to the mole's run, and all is in readiness. When he gets hungry he starts down his run, and entering the trap, finds an obstruction which he proceeds to remove. That releases the trigger, which in turn frees the spring. The spring then tightens the wire loop which catches him round the body. An illustration of the captured mole shows that in this instance the noose girdled him round the neck—the trigger had responded very quickly. The wire noose at the other end of the trap has gone off without a victim, but had the mole entered at that end, the catch would have been reversed. Both nooses are set so that the trapper may get him coming or going. Like most other things, it is easy enough to do it when you know how, but in cases where moles are plentiful, my advice is to call in a professional and let him clear the way. One can then attend to the few stragglers who may venture to bother the grounds after that. It is in the placing of the traps that the secret of success depends. A spot must be chosen through which the mole will pass to get to his nest, or I should say their nest, for moles usually travel in pairs.

Taking the set-trap out of the ground after a catch

Moles build remarkable nests or homes. These are formed of two circular galleries, one a large excavation, with a smaller one above it. They are connected by passages and in the center of these galleries is a chamber which seems to form the main entrance, for all the moles' working runways connect with it. The galleries are what might be termed the living-rooms, for it is here that the young are bred.

A mole will not eat anything it does not catch alive and for that reason it cannot easily be poisoned. But notwithstanding this, they are cannibals, for often the body of a mole taken from a trap will be partly eaten; strange to say, however, the victim is always a male. I have heard the late Mr. Wegner (who was official mole trapper for the New York city parks) say, that of all the thousands of moles he had taken, he had never found the body of a trapped female that had been carnivorously mangled.

During the early Spring, Summer and Autumn, moles bore their neatly cut holes about four to five inches beneath the surface, and about an inch and a half in circumference, but during the Winter when the ground is frozen, they make their runs below the frost line.

Although the mole has no eye visible, there is evidently an indentation where the organ of sight should be located. Hence the conclusion is that the animals' existence under the clod has rendered an optic nerve unnecessary; a condition somewhat different (although the same in the matter of sightlessness) from that of the fully formed eyes of the fish of the Mammoth Cave of Kentucky, that are by disuse now entirely rudimentary and worthless.

If through accident or any other cause moles are unable to find a runway they are known to take to the water, and this readily. They swim well, often crossing streams of considerable size. An old observer, writing in 1793, says that he saw one paddling towards a small island in the Loch of Clunie, one hundred and eighty yards from land, on which he noticed molehills.

Besides being a habitat of North America, the geographical range of this burrower, is from England to Japan.

Set-trap showing manner in which mole is caught

Showing an ugly run-way made in a lawn by moles

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

THE VACATION HOME

By Harry Martin Yeomans

WHETHER one's vacation is passed in a mountain lodge, a seaside bungalow, or on a houseboat threading its way along the mossy bank of some quiet stream, a great deal is added to the joy of this playtime of the year when the vacation abode is all that it should be as regards its interior arrangements.

If there was ever an appropriate place for compact, built-in furniture, window-seats, inglenooks and bookshelves, it is in the vacation home, as it is always desirable to minimize the labor of housekeeping when one is on pleasure bent. If the built-in furniture is arranged for at the time a house is being constructed, it will be found to be much more economical than if acquired later on, and it can also be toned to harmonize with its surroundings at the same time that the woodwork is being done.

If the idea of having only such furnishings as are absolutely necessary, and those in good taste and consistent with the type of house, then a vacation home will be evolved that will be decorative in every sense of the word, and will not have to depend upon applied ornamentation.

The walls should be tinted, kalsomined or painted, or, if of wood, they can be stained with some of the wood stains or dyes which can be obtained in various colors. This mode of treating the walls is preferable to wall-papers, unless, of course, the walls are in such a condition that they cannot stand the tinting process. Stained woodwork is also desirable, as it does not show the dust and is easily kept clean. If the principal rooms are connected by large openings, one will get the effect of greater space by using the same color scheme in the different connecting rooms. At least, all marked contrasts should be avoided. This is also economical.

Floor coverings should be sparingly used and the rag rugs or solid color modern rugs, either in brown, blue or green, will be found to be a good choice. The blue and white Japanese rugs are excellent for bedrooms.

Curtains and hangings should be used only where necessary and made of washable fabrics, such as lawn, gingham, cheesecloth, denim or China silk.

The furniture for the little vacation house should not be pretentious in character, highly finished woods being avoided, and only such furniture purchased as can stand damp weather, hard usage and contact with coarse clothing without showing any ill effects. Furniture of the "Cottage" type is desirable. It can be obtained for every room in the house and can be stained or painted in accordance with any chosen scheme of decoration. The shapes are strong and simple without being heavy in appearance.

In a vacation bungalow which had been furnished as inexpensively as possible, most of the furniture for the dining-room and the living-room, which opened into each other, was obtained in the housefurnishing department of a department store. The furniture sold in that department is intended for kitchen use, comes in the white wood, and is therefore very inexpensive. Chairs of two different types were purchased, two ordinary kitchen tables, and two large tables, the tops of which turn up so that they can be transformed into settles. They were all stained a rich, dark brown and the two settles placed on either side of the fieldstone mantelpiece. The tops of the two small tables were covered with dark green imitation leather held in place by a row of brass-headed nails around the edge. One did duty as a book and magazine table, and the other one was placed against the wall and served as a desk, after being furnished with a lamp and a desk set. Two porch-rockers were added, but as they had already been painted a bright red, they had to be treated to a few coats of forest-green enamel to make them harmonize with the other furniture. When this cheap kitchen furniture was placed against a background of pumpkin yellow walls and brown woodwork, the effect was both pleasing and restful.

For a house at the seashore, the willow and wicker furniture is commendable, as the damp atmosphere does not affect it.

The table of the vacation home will be more attractive and inviting if set with matched dishes of good design. The dainty floral designs are not as good for this type of house as that old standby, the blue Willow pattern. The porcelain cottage ware is worthy of consideration and the Indian Tree and blue onion patterns cannot be improved upon. They are all carried in open stock, are very moderate in price and reasonably safe for transport.

In a bungalow which the writer visited the question of table linen was solved by using no tablecloths. Small squares of hemstitched, écru linen were used interchangeably as either napkins or doilies, and when the table was set with its crude porcelain dishes and the candles lighted, the effect was quaint and charming.

If one must depend upon lamps for illumination, those made from pottery vases or lamps of brass or nickel are best for this type of house. Shades of split bamboo, lined with silk, Geisha shades, or those of glass, are fitting accompaniments.

One should not forget to have a shelf at the bottom of the stairs, or somewhere conveniently at hand, holding a row of bedtime candlesticks.

The vacation home, whether high and dry on terra firma or floating on a waterway, should be appropriately furnished for people who expect to spend most of their time in the open air, but at the same time it should embody the necessary comforts to make this house a pleasant place during inclement weather; cosy enough to plead against exposure.

Height and dignity was given to this living-room by hanging draperies at the windows so as to increase the apparent altitude

ADDING HEIGHT TO A WINDOW

A PLEASING example of the "Value of Effect in Interior Decoration," which was discussed in this department in our March number, is shown in the two accompanying illustrations of a living-room.

The low windows gave a squatty appearance to the whole room and brought the ceiling down too low. This effect was counteracted by hanging long curtains in straight folds at the windows, connected by a wide valance, which covered the space above the windows and brought them up to the height of the doors. In this manner one third was added to the apparent height of the windows, and the whole room was improved out of all proportion to the task involved.

The built-in bookshelves snugly fill the awkward space.

THE DECORATIVE VALUE OF BOOKS

EVERY room should be peculiarly adapted to the purpose for which it is intended and if this element is lacking the room is a failure. A library immediately suggests books—books large and small, rare and unique, or, in all probability, just ordinary books, but, nevertheless, a library should be built around its books. They must dominate the room and become its principal decoration, for when the chief reason which justifies the existence of a room can be treated in a decorative manner, then one is approaching real decoration. When properly placed and massed, books will add to the decorative quality of a room, whether they rise from floor to ceiling in serried rows, the various colors of their bindings weaving a dull-toned tapestry, or if one's books only occupy the space of a modest bookshelf.

To obtain the best decorative effect from books depends entirely on the manner in which they are arranged. The low bookcases, having glass doors, such as are usually seen, protect the books from dust, but they also hide them so that the books do not get their full value in the decorative scheme. Ordinary built-in bookshelves, such as can be made by any carpenter, commend themselves for this purpose and have a number of good points in their favor. They can be made to fit exactly into any desired space, either large or small, can be built up to any height, and painted or stained to accord with the general color scheme of a room. When the outer edge of the upright supporting boards are grooved, to take away the appearance of boxiness, and finished with a plain molding at the top, the bookshelves will be both sightly, artistic and inconspicuous. If a great many books are to be housed, it is a good plan to have low-set, built-in shelves run entirely around the room, coming to the same height as the shelf of the mantelpiece. The temptation to place a quantity of bric-a-brac on top of the low-set shelves must be resisted, only a few pieces of faïence, brass or copper, or a colored plaster bust, or other objects possessing real artistic merit should find a resting place here. Satisfactory dimensions for such bookshelves are four and a half feet high, with four shelves at graduated heights. The lower shelf should be four inches from the floor, and the lower shelves ten inches wide and the top one twelve inches. Bookshelves of this height permit of pictures being hung above them on a line with the eye. If additional book room is desirable, the shelves can be erected between windows and be just the same height as the windows themselves.

In an old house which had a deep chimney-breast, the spaces on either side of the library mantel to the corners of the room were filled with bookshelves, rising almost to the ceiling, and just deep enough so that the outer edge of the shelves were flush with the chimney-breast. When planning a new house large enough to devote one room to library purposes, it is an excellent idea to decide beforehand just where the books are going to be placed, and have these spaces sunk into the walls, so that when the books are in place the backs of the volumes will be flush with the wall surface. A room treated in this way will have the effect of being paneled with books. This gives a more solid and substantial appearance than can be obtained with built-in bookshelves. If a room should have an extra closet which is not used, the door could be removed and shelves built in, the finished effect, after the books had been arranged in rows, being much the same as that referred to above. If a resting place is required for only a few books, the shelves can be built into an angle of a room, where no other piece of furniture would fit conveniently, and the bindings of the books will decorate this corner effectively. In a combination living-room and library, the bookshelves could be built partly around the end of the room and would accommodate all of the books found in the average house. In one house the writer saw a good arrangement of bookshelves over and around a couch. In the space between two doors, a box couch was placed against the wall, and plain bookshelves, ten inches deep, extended three feet at either end of the couch. This completely filled the space. The shelves were built up in a tier of five, the top one extending all the way across over the couch below. When the books were placed in orderly array, this uninteresting wall-space and box-couch took on an air of distinction and the effect was extremely good. The space over a built-in seat in an inglenook will often be found a convenient place for shelves to hold books.

The built-in bookshelves should be strong and substantial, not only in reality, but in appearance as well; strong enough to carry the weight of the books they are designed to hold. When they extend to a height of six feet or so, a stool should be provided, that will not tip over, so as to reach a volume.

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

JUNE IN THE GARDEN

Photographs by Nathan R. Graves and others

WHAT a month of joyfulness is June in the garden! It seems only yesterday that we were coaxing Mother Nature to lift her white blanket that Spring might awaken to new life the sleeping plants that lend their color to the season. We are reminded of all the poets of the garden, Wordsworth, Tennyson, even old Geoffrey Chaucer, who sings in one of his prologues:

"When almost ended was the month of May,
Along the meadows green, whereof I told,
The freshly springing daisy to behold,
And when the sun declined from south to west,
And closed was this fair flower, and gone to rest,
For fear of darkness that she held in dred,
Home to my house full hastily I sped;
And, in a little garden of my own,
Well-benched with fresh-cut turf, with grass o'ergrown
I bade that men my couch should duly make;
For daintiness and for the Summer's sake,
I bade them strew fresh blossoms o'er my bed."

Every corner of the lawn and garden deserves the careful attention that has been given to this attractively planted terrace nook

We will find the lovely Columbine blossoming this month yellow or scarlet or red or purple or white, that flower of strangely contrasted names, borrowing Columbine from the Latin *columba,* a dove, and *Aquilegia* (its scientific name), from *aquila,* an eagle! In the old, old days of yore, credulous folk called it Lion's Herb, believing that it was the favorite food of these fierce animals of the desert and jungle. And nowadays we fondly couple the name Columbine with Columbia, and even find an association of enthusiasts who seek to propagate the idea of its adoption as America's national flower, just as the Rose is for England and the Lily for France. Monkshood will be blossoming in June too. It is a lovely plant, but a sinister one. It was brewed by Medea to fill the poisoned cup offered the wary Theseus. It was with the juice of Monkshood (*Aconite*) that the ancients used to anoint their weapons when preparing to do battle, and the old-time Greeks were wont to tell how Chiron, the Centaur, discovered its dreaded powers by dropping upon his hoof an arrow that had been dipped in the juice of the plant, his death accompanying his discovery. They believed too that Monkshood was sown in the garden of Hecate by Cerberus, the three-headed monster who guarded the place of shadows. But June's garden will find within its borders flowers of less sorrowful an ancestry,—Campanula (Venus's Looking-glass), Iris (the Lily-of-France), Honeysuckle, Hollyhock, Jasmine (to the Arabs the flower of love), Linden (the holy tree of the old Germans), the Rose, Pyrethrum, Salpiglossis, Schizanthus, Sedum, Spiræa, Sweet Alyssum, Sweet Pea, Veronica, the Violet (sacred to Venus when the gods were still upon Olympus), and the Larkspur, though that beautiful plant has almost as sorrowful a history as the Aconite. This was the flower the marks of whose petals formed the letters A I A, signifying Ajax, terror of the Trojans, for it was believed that the blood of this disappointed hero dropped upon the earth, and from it the Larkspur as *Delphinium Ajacis* sprung forth.

OF course there may be those to whom a garden means just plants—vegetables to eat or flowers to sniff at—prosaic persons who are so busy just living to-day that it never occurs to them that yesterday makes it possible and to-morrow will make it profitable. Why, when the whole world is full of interesting things about everything, should anyone be content to know almost nothing about anything? And isn't it true that we know too little about the things *in* our gardens, though we may pride ourselves greatly on the knowledge we have acquired of the subject of getting them in.

TO care for the poetry of things does not mean deserting practical problems. Thus it comes to pass that if we would have beautiful flowers to talk about (and fat vegetables—what a temptation the mundane is, after all!)—we must go about the business of completing the manual

A well-designed garden seat for the country place

tasks that June sets for us in her gardens. There will be cabbages, peppers, and cauliflowers and celery to set out, Dahlias and Gladioli to set in the earth, tomato vines to tie up, berry bushes to spray a couple of times (fruit trees too), privet to be trimmed, late crops to be sown—beets, carrots, corn, turnips, potatoes, radishes, beans, etc., and one must be on the alert for cut-worms, currant worms, rose-beetles, and other insect pests that afflict our gardens. In June, when the Hyacinth and Tulip leaves have turned color, the bulbs should be lifted and stored in the cellar until it is time to set them out in the Fall, and the withering leaves of the Daffodils should be cut away and the grass mown where the Crocus have bloomed and now leave only their sere stems to remind one of their late loveliness, that quality which makes amendment for all the earthiness of the hunt for pests or spraying of vines.

The yellow Coreopsis is one of the best garden flowers for cutting

(1) *Covered boxes or plant protectors*: Where these can be employed, as in covering hills of melons and cucumbers, they are the simplest, easiest and surest way of saving trouble and damage. (2) *Hand picking*: If the beetles or bugs do put in an appearance, knock them off with a small wooden paddle into a pan half-full of water and kerosene. Destroy all eggs. (3) *Kerosene emulsion*: Dissolve ½ pound soap in 1 quart boiling water and mix with 2 gallons kerosene and 1 gallon water, and churn or pump until a thick cream is obtained. For use, dilute 10 to 12 times with water and spray on. (4) *Tobacco-dust*: If you can procure a good strong honest grade, this will prove very effective in keeping off both plant-lice and bugs. Dust on the leaves very thickly. (5) *Arsenate of Lead*: This is much safer, surer and more lasting than Paris green. Use at the the rate of 3 pounds in 50 gallons of water and strain well before filling sprayer. If you will take the slight trouble to keep a supply of the above on hand and watch your plants *daily,* and act immediately on the first sign of the enemies' presence, your garden should come safely through the Summer campaign, and will reward your vigilance a hundred-fold.

COREOPSIS

THE Coreopsis should find a place in every American garden, not only by reason of its beauty, but also because few garden flowers are more easily grown. Moreover its blossoms continue late into the Autumn and it is one of the most dependable of flowers for cutting. Many species of Coreopsis are also known, in florists' lists, as Calliopsis. The annual garden varieties may be raised in any soil. The perennial varieties are excellent for arranging in hardy borders, their brilliant yellows and rich browns forming exquisite contrasts.

SUMMER WORK IN THE VEGETABLE GARDEN

(*Continued from page 203*)

plants are big enough, transplant to two or three inches apart each way. In September, as cool weather comes on, they will be ready for setting out, the early sorts in the garden, later sorts of later plantings in the cold-frame, where by protecting with sashes and mats, or better still, with double-glass sash, they may be had, without heat, until after Thanksgiving.

FIGHTING INSECT PESTS

One of the most important tasks in the Summer garden, is keeping the numerous and destructive insect enemies at bay. The first thing to be remembered in this warfare is that *you must get the enemy before he gets you.* Preventive "remedies" are the only successful ones. If bugs, borers, beetles, plant-lice or any of this ilk once get a *start,* it is almost certain that they will ruin a good part if not all of the crop.

Plant enemies are of two kinds—those which eat, and those which suck plant juices. The latter are practically impervious to any internal poisons such as Paris green or Arsenate of Lead. If the following remedies are used *in time,* they should prove effective in safeguarding your garden:

THE EATERS	REMEDY	THE SUCKERS	REMEDY
Asparagus beetle	3-4	Aphis (plant-lice)	1-2
Cabbage worm	4	Squash borers	1-2
Tomato worm	4-5	Squash bug	1-2-3-4
Cucumber beetle	1-4	White fly	3-4
Cut worm	1-5		
Flea beetle	3		
Potato beetle	1-5		

Blazing Star (*Liastris*) thrives in light soil and blooms in late Summer

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

THE MOTHER'S PART IN ATHLETICS

By Elizabeth Atwood

I AM sure that helps to the housewife may be found in suggestions relating to other things than the table. Believing that athletics should form a great part of the lives of our boys and girls, it seems to me a mother's part to be actively interested in developing the athletic spirit. She must sacrifice her fears, and take an interest in the games—not hinder them.

Play is as natural to boys and girls as is the running of the dog who doubles and trebles the distance when you take him for a walk. This same spirit continues through life unless perverted, but at no period is it more pronounced than through school and college. Dr. Henry S. Curtis, Secretary of the Playground Association of America, who must know well what is good for boys and girls, believes that what we want is more of joy and fun. Who ever raised a family of children without knowing just that? I claim that children need a mother's interest in their fun as in their work.

Because of this very influence for happiness and added interest in school and its requirements, I am a friend to school athletics. I fully believe in their power for good, from the days of "Crack the Whip" and "Tag," with all the trying accompaniments for the mother, of worn knees of the stockings and torn trousers, to the days of baseball and football, with its worn clothes and torn flesh to be mended. This is what mothers are for.

Class spirit, team spirit, merging into town spirit, is the result, and is for good. The need for high scholarship to qualify a boy for his membership of the team gives a happy impetus to his school work, under which the necessary grind loses much of its pain. It is all well enough to say that we send our children to school to study, but the world moves, and educators know that play must and should be provided for, as well as the study. I am forced to admit that boys have much more conscience about athletics than they have about study, but this is only another reason why they are bound to be helped by their association with athletics. A fun-loving boy, not meaning to be a shirk, drifts along in the easiest way, laughing at his parents' anxiety over his work, content to just squeak through, and loses no sleep over a failure. But just let a chance of joining the "team" appear, and presto! all changes.

A novelty for the table—Grape-fruit holder

It does not make a student or a grind out of him, but the actual stimulus does lift him out of his careless ways. His marks begin to improve, and his habits have to, if he has been given to smoking or to drinking too many sodas.

This in turn helps the physical condition and produces the healthy body. Boys must be doing something, so give them the right thing to do and encourage them in it. A great moral education may be conveyed through this very play. A place where boys may run off, as in baseball or football, some of their boiling, surging energy, is just what they need. This same energy is what will make them efficient citizens; and to direct and help it along in healthful lines is a mother's contribution—as much her duty, as to feed them properly.

Another moral effect is in the guiding of the mind along healthful lines; and in this inspiring, active out-of-doors exercise working off morbid thoughts, or better still, leaving no room for them to come. We cannot quietly set this possibility of danger aside, and if there is no cause for fear for our boy, his example will be helpful to the one in danger. I always feel that the active boys on the field are safer than the looker-on who pays more attention to his girl-comrade than he does to the game.

There are mothers unwise enough to forbid all rough play. When my children were small, they had a great contempt for some children whose mothers would not allow them to play any games where their clothes would suffer. With merciless candor they expressed themselves, these relentless, active school children, and dubbed the nice, clean boys "sissies." What insupportable anguish that mother inflicted upon her children! They were pale and puny, generally ailing, and practically ostracized. My boy said, when I remonstrated, "Oh, yes, Harry always knows his lessons, but he's no good, 'cause he can't play."

Later on in life I have seen the really terrible effects pro-

duced by mothers who honestly thought they were acting for their boy's best good. They had nerves, these mothers, but I think they were entirely responsible for their condition. One told me, "I just can't bear to let Billy do the stunts these boys are doing. It makes me nervous just to have him swimming around." And, then, discovering that her precious Billy was out of hearing with some of the other boys and girls, she went into the cottage and had a fit of hysterics. The father whose first thought was for his nervouse wife, gave Billy a scolding, and the air was not charged with happiness for this family.

Here was Billy, a stalwart six-footer, constantly handicapped by a nervous mother. I felt terribly sorry for the boy, and tried to show this mother how she was making her boy very unhappy. Billy had the build for athletics, and, of course, it made him cross and irritable to be held back in this way, as though he were a puny six-year-old. It was no use, for Billy's mother had that most awful, with men (and Billy's father was no exception), that most potent argument always ready—tears! How I hate them!

The crisis came one day, as it was bound to come. There was great excitement, for the time had come when, the water being warm enough and all in good practice, it was decided that two girls who had been begging for the privilege of swimming across the lake should be allowed to do so. It was a strong mile. Of course, Billy was wild to do it, too, for some of the boys were to swim with the girls; other were to be in the boats and canoes. Of course, it was a great event for us all.

Do you suppose Billy's mother roused herself to say yes? Well, she didn't. She began to cry and "take on," as only a nervous woman knows how to do, and poor Billy in self-defence took to his canoe. He fairly writhed under this lashing of his pride. A girl to swim across the lake, and he refused permission to do it! I can't think of anything more humiliating to a boy of strength and power, for Billy was a good swimmer, and was naturally tired of swimming parallel to the shore.

He had reached the limit of his patience, and the next day he went to a neighboring cottage, where he was out of sight and hearing of his mother, and swam across the lake! When I was called upon later to reason with Billy's mother, who had heard about it, she was moaning and wailing, "Oh, that my boy could deceive me so!" I am afraid I was not as full of sympathy as I should have been, for I told her point-blank that she had brought it on herself by treating her boy of man's stature as though he were three years old. I confess my sympathies were with that boy.

When a woman is permitted to be a mother of boys, she must try to look at things from the boy's point of view. It is only in this way that she can cultivate a spirit of regard for her wishes. If a mother allows herself to be unreasonable and exacting, so that her boy, fearful of a scene—and boys do so hate scenes—simply does not tell her of what he is doing, does she not invite deception? And is this a good thing? A mother loses a great deal who is not a comrade to her boy.

I think that the women of to-day, whether they gain the vote they are clamoring for or not, have a great responsibility on their shoulders. It belongs to them to develop a higher regard for truth. Where is this to be done? In the home, of course. Woman must be wise in her restrictions when she is handling boys. She must not restrain them to the point of losing their confidence, or she invites evils far greater than those she denounces.

Here is another case of a foolish mother, and an equally foolish father, for, in his care of the mother he requires too much of the boy. Hal is in a preparatory school, and this school has a very fine football team. Hal is well set up, large and tall, just the very one you would pick out for football. His comrades think so, too. His fond parents do not. They have allowed him to play with the boys at home until he is a good player. But at the preparatory school he is forbidden to take a place on the team.

Here is injustice to the boy which he recognizes. He has reached man's stature, but his parents do not see anything but their little boy. He has claims to an exercise of judgment for himself which his parents do not see. He is commanded not to do a thing in one place which he has been allowed to do in another. Is not deception bound to follow? In this case it did, and the boy will be on the "team" another year. Is not this deception worse than a broken nose?

Mothers must allow their sons to grow up. They must help them to be clean and pure and strong. If the boys yearn for baseball and football, and, mother-like, they must feel anxious, bear the suffering and be ready to bind up

TWO CHERRY DESSERTS

By Mary H. Northend

Cherry Cakes—Bake any good plain cake mixture in gem pans and cut a thick slice from the bottom of each one while hot. Have ready some preserved or ripe sweet cherries halved and pitted, decorate the cakes with these and serve immediately with vanilla sauce. If more cherries are desired they may be cut up and added to the sauce just before serving.

Cherry Jelly—Stone a quart of cherries and boil them for an hour in a thin sugar syrup. Flavor the syrup with lemon juice, and strain through a jelly bag. Then add one ounce of dissolved gelatine, turn into a mold and set away to harden. When ready to serve, unmold, fill the center with whipped cream, and garnish with whole cherries.

possible wounds, which will sooner mend for your solicitude.

Athletics make for health and strength of body. Interest in the game of the season is always a good stimulant in other directions. Happy is the home into which all this interest is brought, sure of hearty sympathy. My home is one of the places where boys gather to discuss these important matters. I hear much of the talk. I would not care to give cause for the remarks to be made about me that I have heard about Hal's mother, for instance.

How much good athletics stand for is proved right here in New York. There are over one hundred baseball fields provided by the city. What joy for the boys this means! Long live athletics! Mothers, help your boys by overcoming your fears, and becoming interested in their play, instead of always worrying over their work, and great will be your reward, in their finer development of mind and body.

AN AMERICAN COTTAGE OF ENGLISH TYPE

(*Continued from page 206*)

living-room is low ceiled and the woodwork is paneled, which give the somewhat "distinguished" effect such treatment always conveys. The cornice of the mantel shelf is continued upon each side as a narrow ledge upon which may be placed photographs, small framed pictures and the various other small possessions which accumulate in a family living-room. Wide doors open into the dining-room, where one entire side is taken up by a row of casement windows opening upon a broad terrace which afford a view across the stretch of green lawn into the forest beyond. In one corner of the dining-room is the entrance to the pantry, beyond which is the kitchen and the service entrance, and the servant's stairway to the floor above. One corner of the house contains the little room called the "den"—a small study, office or smoking-room which makes the little sanctum a man often wishes to have for his own.

The upper floor is divided into four bedrooms and two bathrooms for family use and a maid's room which is provided with a bath. Closets in plenty are provided and the bedrooms are so placed that each possesses windows in two directions which give "cross current" ventilation. The little sleeping balcony which opens from one of the bedrooms is sheltered by panels of latticework and screened with wire netting.

The Russell house has not been built long enough to be surrounded with the shrubbery and vegetation which do so much to complete the setting which such a home requires. The window-boxes with their blooming plants and hanging vines and the narrow borders for growing plants just below the groups of first floor windows, are probably merely the beginning of the work which time and nature will provide.

BOYS' CAMPS

(*Continued from page 217*)

and the campfire, the mountain spring, and the carefully chosen bed on the pine needles after the long day's tramp, weave a train of delightful memories that are never forgotten.

Besides these special trips, there are many unique events, generally arranged for. Camp bonfires, Saturday evening entertainments, barbeques, corn roasts, minstrel shows, kindergarten parties, vaudeville, and historical pageants, are included in the list, all originated and carried out by the boys. Then, too, at the end of the season a field and water day is held, affording to the friends and the parents of the campers an opportunity to judge of the prowess gained from constant practice during the Summer, and constituting a fitting close to this season of beneficial enjoyment.

PORTABLE HOUSES FOR THE LONG VACATION

(*Continued from page 219*)

it may be easily reached from the dining-room by a covered passageway. It is very easy to add another room to a portable building should circumstances make it necessary, although added sleeping quarters are very often placed in a building to themselves, wholly apart from the main structure. In planning the house a covered porch or veranda should certainly be included, for it adds very little to the cost and increases wonderfully the comfort and convenience of the cottage. If two porches may be included one might be wire screened and used as an out-of-door sleeping-room.

A portable cottage, more than any other type of vacation home, should be very simply furnished with merely the things required for actual use, but this need not prevent the appearance being very inviting and attractive.

The simplicity demanded in such a home is very often the cause of very interesting and beautiful interior arrangements, for excellent results are sometimes obtained by the tasteful and careful placing of very little furniture, simple draperies, and a few rugs. The selection of cooking apparatus is a very important item and is governed largely by the choice of locality in which the vacation home is to be established. Gas or electricity as fuel are apt to be difficult or impossible to procure and either coal or wood would produce a heat too great for the comfort of the cook unless the roof of the kitchen be "hinged" to provide proper ventilation. The choice of fuel narrows down, therefore, to gasoline and kerosene, but excellent cooking-stoves of these kinds are procurable and the oil to supply them may be obtained anywhere.

It is surprising what an amount of pleasure and comfort may be had from a vacation spent in one's own cottage. Every part of the country abounds in beautiful and easily accessible spots for the erecting of a Summer home, and ground sufficient for one of these little portable houses may be rented for almost nothing. When the building arrives from the factory it can be readily set into place, one's belongings arranged in the various rooms, and a few quick-growing vines planted to shade the veranda and the windows. If the vacation home be established sufficiently early in the season it may even be possible to make a flower or vegetable garden which will afford the pleasure and satisfaction one feels in "making things grow." The vacation will prove a time of rest and content which can never be had by those who spend their Summers in resort hotels. With the end of the season the house should be made ready for the Winter and until another vacation time comes around. If the next Summer is to be spent at a different place the house should be carefully taken apart and stored away until another season brings new uses for its comfort and independence.

Portable buildings of either of the two types which have been described are useful, of course, in many ways besides as residences and are in service everywhere as churches, schoolhouses, barns, garages, etc. They are often utilized as studios and an enterprising architect has established himself in a portable house upon the roof of a skyscraper in lower New York. The chief function of the portable building, however, is as a home, and as such it has been on trial for the greater part of twenty years and in a great variety of localities extending from Maine to California and from Minnesota to Florida. The use of such a building as a permanent home is possible, of course, in any but the most rigorous climate, and even there it could be used throughout the year with a small expenditure for a lining particularly heavy. Study the question carefully and choose a type of portable house adapted to your requirements.

ELECTRIC COOKING ON RAILROAD TRAINS

ELECTRICITY has been applied in a new way to increase the comfort of railway travel by the introduction of electric cooking devices on the dining cars of certain fast trains between Chicago and the Northwest. A feature of the service is that the passengers are encouraged to display their culinary skill. Connection to the lighting current of the train, which is supplied by a steam turbine generator set, is made at an outlet at every table to which the usual devices—frying pan, water heater and egg boiler, chafing dish, teakettle, toaster, coffee percolator—are connected. Apart from the diversion of thus varying the monotony of a long railroad trip, food prepared in the kitchen is maintained in good condition by electrically heated receptacles.

THE JAPANESE AS PHOTOGRAPHERS

A WRITER in the "Japanese Magazine" has the following interesting information to give concerning photography in Japan: about two thirds of a century ago (1843) photography was among the innovations that came to Japan with the introduction of Western civilization. Lord Mito was one of the first men of prominence to start investigations in photography. He sent Kikuchi, one of his retainers, to Nagasaki, where he learned of a Dutch book containing elementary instructions in photography, and was able to secure it. Kikuchi had the book translated into Japanese, and having mastered the subject, returned to instruct the prince. Immediately the necessary outfit, camera, chemicals, etc., were ordered through the Dutch merchants in Nagasaki. They arrived, and the art of photography was practised for the first time by Lord Mito himself. The progress and use of the art and its study were seriously retarded by the superstitious fear and dread with which it was regarded by the people, who thought it endangered their lives. Shemoaka Renja was the first in the field as a professional, and met with the greatest difficulties in pursuing his work. To gain the necessary knowledge of the art of photography he entered the service of the American Envoy as a menial, as he had heard that the Minister's interpreter was well equipped for taking photographs. The latter readily complied with his request for lessons in the principles of photography. Learning of the arrival in Yokohama of a real photographer from America, Shemoaka straightway left for the port to make his acquaintance. He succeeded in acquiring the photographer's complete equipment, and opened his own studio to the public. But he had to depend entirely upon the patronage of foreigners, for no Japanese could be induced to go near such a place. At first things went well enough; but later he had great difficulties in replenishing the small laboratory, and worse still, was ignorant as to the preparations in which the chemicals must be used. His experiments resulted in utter failure, and he was about to abandon his beloved project when a final trial brought success, to his great joy. Knowing he could find ready sale for pictures of the city, he placed his camera inside a palanquin, so that he could manipulate behind drawn curtains, as he did not dare to take the pictures openly. By having himself carried

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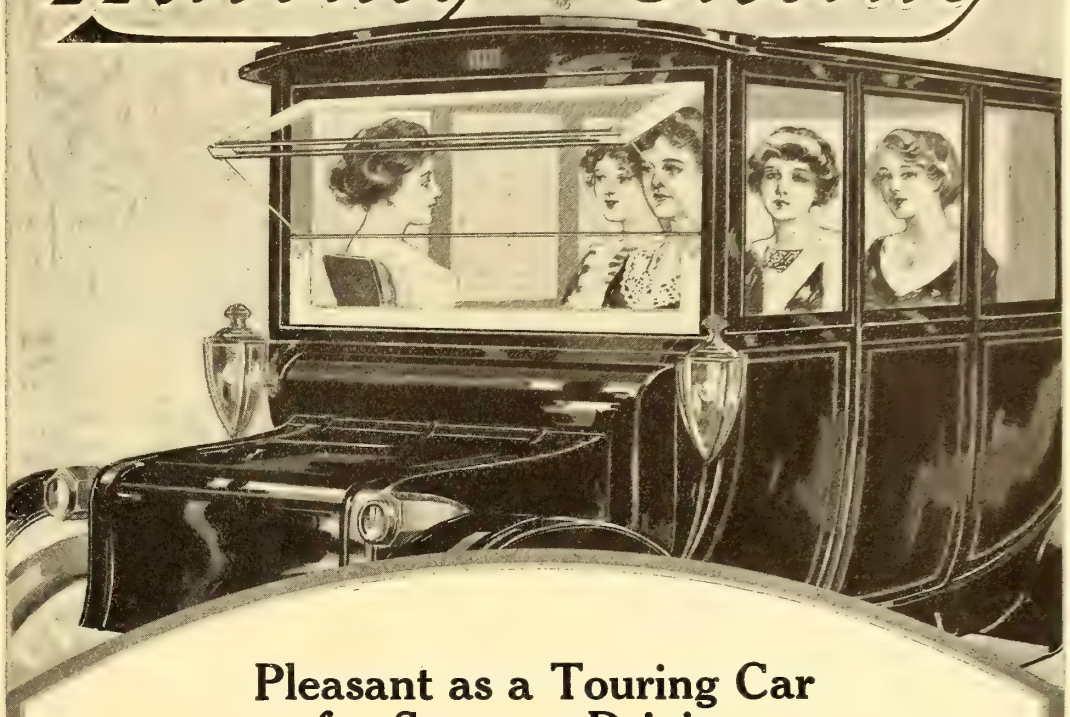

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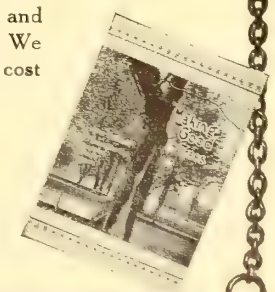

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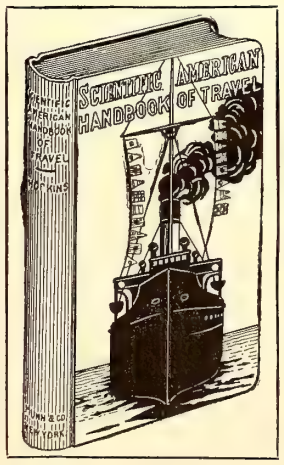

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through the streets he was able to obtain fifteen views—the first photographs of public places in Japan—which brought him large returns. In time the people learned to understand photography, and they became as enthusiastic in its favor as they had been against it previously, and photographers sprang up over the various cities.

VACATION STUDIES

THE Summer vacation gives opportunities to those who have problems in planting to solve to learn by the mistakes of others what not to do, or if the vacation be spent in the wilds, nature undefiled may be full of pregnant suggestions about what to do.

A knowledge of even a part of our native trees and shrubs will be of the greatest assistance to people who wish to improve their own places by planting.

Most of the poor planting that one sees is poor because the trees and shrubs used are unsuited to their environment and a study of our native plants as they grow wild should go far to keep one from using unsuitable material.

If you stay in one place for your whole vacation it would be an excellent thing to make a sort of flora of the district including all the interesting trees and shrubs.

If your vacation is a rambling one then you could still make a list of good things with larger observations on their adaptability to different situations and their general luxuriance of growth.

The artistic aspect of trees and shrubs should be studied and for those who have any facility in sketching there is no way so good.

The soil where such plants grow should be noted with care and also the situation—whether it is wet, moist or dry ground.

Botanies are usually deficient in their descriptions of the soil, and situation in which plants grow and such knowledge is of great value.

The number of trees and shrubs in any locality is, of course, influenced by man and the uses to which he has put the land, but there are many places where almost primeval conditions exist and those will be particularly interesting to study. The adaptation of plants to a new environment or to new conditions of light or whatever is worth study. The Laurel (*Kalmia angustifolia*) for instance must certainly be a plant of the deep woods, yet it grows luxuriantly when the woods are cut off.

The determining factor in the distribution of many trees and shrubs is no doubt the condition necessary for the germination of their seeds and for their first year or two of life. Thus the Button Bush (*Cephalanthus occidentalis*) can be transplanted to any good soil, but I have never found it wild except close to the water.

In a similar way the fact that a certain tree or shrub grows in poor soil does not prove that it will not grow in rich soil, but only that the soil is too poor for any other shrubs to grow with the same luxuriance.

The power of resistance of any plant to adverse conditions deserves study, and can be studied to advantage in successive vacations, if they be spent in different localities.

The Red Cedar will grow in sand or clay, in the crevice of a spray dashed rock on the hill tops, or in the valley, and some other plants show a similar hardihood.

A list of plants growing along the coast would be of great value if it stated the exact soil and situation in which each plant was found. Does the Beach Plum grow only in the sand or will it grow just at the

meeting point of sand and marsh? Which plants will endure salt spray, and which will endure occasional submergence by perigee tides? How far down over tidal rivers does the sweet flag (*Acorus Calamus*) grow?

The oaks are little understood. They grow throughout the country, but how many people can predict with certainty where any species will be found or will be absent?

When one has a particularly difficult problem in planting a study of the plants growing wild under similar conditions is obviously necessary, but with any problem some knowledge of the sort is desirable. In ornamental planting we often see many shrubs struggling against impossible conditions—impossible for them, but quite favorable for some other plant of equal beauty though of different characteristics.

The accidental groupings of trees, shrubs and plants which one sees while in the receptive mood induced by a Summer vacation are full of suggestions for the thoughtful amateur. The reproduction of such groups will perhaps be difficult, but it is not impossible if one studies the soil and situation and the fortuitous circumstances which have made the group possible. The association of species under natural conditions will give one ideas for grouping plants, and will prevent such absurdities as the combination of cedars and willows.

Observations of many ornamental plantings should quickly give one an idea of the most useful trees and shrubs, and the older the plantations are the more useful will be their testimony.

Japanese barberry is a most satisfactory shrub, but sometimes it fails completely. The Norway spruce is, of course, the famous example of an introduced tree ill suited to this climate. There are many others equally unsuited, and the signs of their unsuitability should begin to show in many plantations. One can never know, of course, what the absolute failures have been. They die and are taken out within the year usually, but much can be learned by a study of the flourishing or struggling remainder.

There are many wild plants not now grown in gardens to any great extent, which are capable of excellent use in the garden and a study of their characteristics and requirements will be well worth while. The partridge berry (*Mitchella repens*) is very beautiful and might be very useful in certain situations.

If it is to be beautiful, ornamental planting must be luxuriant in growth, which means that the plants must be well suited with the climate, the situation, and the soil. In many cases this must mean that the plantation is composed in large part of native plants.

FISH IN FROZEN DEPTHS

CUBA ends to the south in a huge formation of mountains 8,000 feet high, and steeping sheer into the sea. The wall does not end there, as a writer points out in an article in the London *Nation*, but continues its precipitous descent into the 700-mile-long abyss called Bartlett's Deep. This gigantic submarine valley is four miles deep and eighty miles wide.

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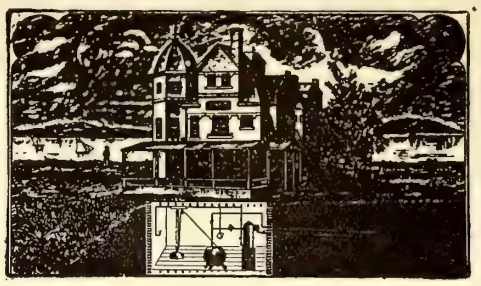

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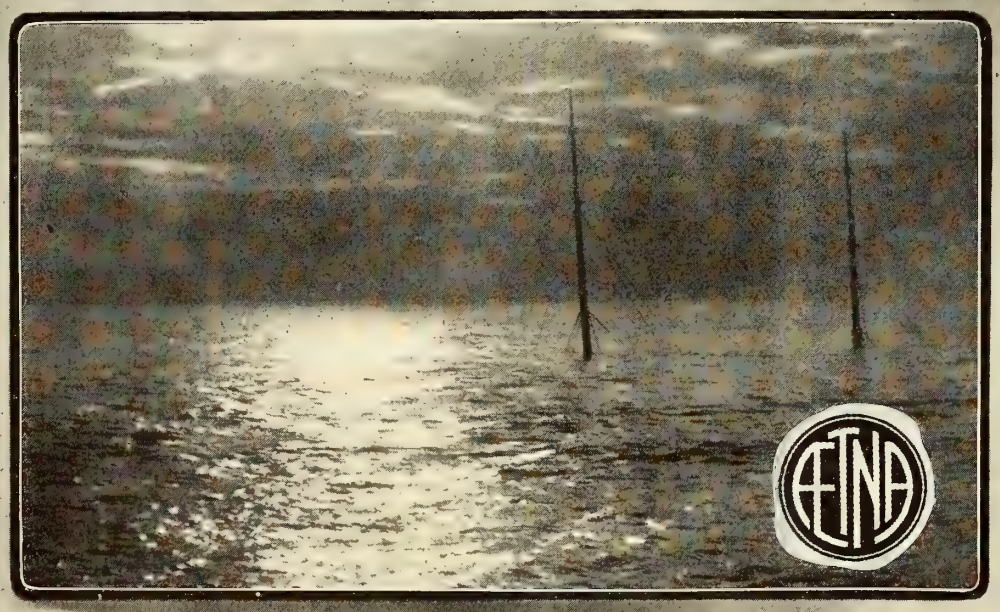

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that in the depths of the sea there should be no animal life. As a matter of fact, these glooms are inhabited by the most grotesque and chimerical of all fishes. It would seem as though in the darkness life has taken every imaginable license to be ugly and bizarre. Cannibalism is evidently the only method of life, and its equipment runs to every kind of extravagance.

There are fish with teeth so long that they cannot close their mouths, fish that draw their stomachs over prey larger than themselves, fish with no more mouth than a leech and getting their living as leeches, fish with huge, myopic eyes, and fish frankly blind. Probably none of them comes from depths quite beyond the region of light, though a great many of them go poking about their ghoulish business furnished with lanterns of the glow-worm type.

TOOLS THAT ARE SHARP.

MANY amateur gardeners fail to realize that they can get better results and with much less labor by keeping their tools sharp. Whoever uses a hoe ought also to have a file in one of his pockets and use it frequently. When the hoe is sharp and shining the earth does not adhere to it as it does to one which is uncared for, and which is something for garden makers to remember. There is a man near Boston who makes a living from two and a half acres of land. This man says that he wears out a hoe every season, as well as two files. He has learned by experience that a sharp hoe lightens his labors. It is just as important, too, to keep the teeth of the wheel hoe sharp and bright. Tools may be kept from becoming rusty by rubbing the bright parts with lard to which a little white lead has been added, or with wagon grease. If they have been neglected until they have become rusty they may be soaked in sour milk whey or in kerosene for twelve hours and then rubbed briskly. A little mineral wool is useful in keeping tools clean. Tools may be marked by making a small space on the steel perfectly clean and bright and covering it with melted beeswax, and then using a sharp pointed wire nail to mark the initials on the wax, care being taken to cut through to the metal. The letters are made permanent by filling them with nitric acid, which should be allowed to remain three or four hours and then be washed off. The acid will have eaten into the steel and the letters will show as soon as the wax is removed. Another plan is to make a rough stencil of tin and to burn the initials into the handle.

DEDICATING INVENTIONS TO THE PUBLIC

AT the present time many patents are being dedicated to the public. It remains to be seen whether the inventions covered by such patents will prove beneficial to mankind or be utilized to any extent. In a work entitled "Creators of Steel" it is said: "Sir Henry Bessemer is a believer in patents; but to his varied experience in the introduction of new inventions another single fact has to be added. 'I do not know,' he says, 'a single instance of an invention having been published and given freely to the world, and being taken up by any manufacturer at all. I have myself proposed to manufacturers many things which I was convinced were of use, but did not feel disposed to manufacture or even to patent. I do not know of one instance in which my suggestions have been tried; but had I patented and spent a sum over a certain invention, and seen no means of re-

The Aermotor with the automatic regulator stops when the tank is full and starts when the water is lowered 4 inches. You oil it once a week. A gasoline engine has to be started and stopped and oiled and attended almost constantly, and you have large expense for gasoline and oil. The wind is free.

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But the gasoline engine has its place on the farm notwithstanding the fact that 100 people are maimed or killed with gasoline where one is injured by a windmill, and that 100 farm buildings are burned with gasoline where none is injured by a windmill. For the water supply, the windmill is the thing. Thousands of farmers who have done their first power pumping by a gasoline engine have become tired of it and are buying windmills. That is one reason why our windmill business increases from year to year. We can furnish you much testimony like the following:

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couping myself except by forcing, as it were, some manufacturer to take it up, and I should have gone from one to the other and represented its advantages, and I should have found someone who would have taken it up on the offer of some advantage from me, and who would have seen his capital recouped, by the fact that no other manufacturer could have it quite on the same terms for the next year or two. Then the invention becomes at once introduced, and the public admits its value; and other manufacturers, like a flock of sheep, come in. But the difficulty is to get the first man to move. The first man might say: "Oh, my machinery cost me a great deal of money. I have my regular trade, and this new scheme is sure to be more trouble to me in the first instance; and when everybody asks for it, every other manufacturer will be in a condition to supply it, so it is not worth my while!" I believe inventions which are at first free gifts are apt to come to nothing.'"

CHINESE WATER-NUTS

THE United State Daily Consular and Trade Report recently contained the following interesting paragraphs about the horned ling—water chestnut—of China:

"The term 'water chestnut' in China is indiscriminately applied to several varieties of nut fruit of plants growing in water, which form a considerable portion of the food supply of many natives. They are so well liked by Chinese that large quantities of the nuts are exported to various parts of the world, particularly to Chinese in the United States and the Philippines.

"Perhaps the more widely scattered species is that known by the Chinese in the Yangtse Valley country as 'ling' and in the Canton country as 'ling kok.' This nut is shaped much like the two horns of a water buffalo or Texas steer, including a portion of the skull. The shell is so hard as to require cracking, and the kernel is comparatively small and consists of almost pure starch.

"The 'ling' or 'ling kok' is the variety most generally noticed by travelers along the canals and ponds of central China. On the canal system connected with the Grand Canal in Che-kiang Province and in that canal itself the cultivation reaches its greatest extent. The nuts are planted merely by dropping year-old nuts at intervals of a few feet in ponds or along the edge of a canal, where the plants can be fenced in by bamboo poles and a net work of bamboo.

"They are planted annually in the Spring, growing best in five or six feet of water. The nuts take root quickly and send a shoot to the surface in an incredibly short time. The nuts are formed among the leaves of the plant on the surface and are gathered in boats. A water chestnut field of this sort resembles in appearance a field of water hyacinth in the rivers of the Southern United States. The nut plant, in fact, grows under similar conditions to the water hyacinth, and it is probable that the nut could be cultivated in the United States where the hyacinth plant now grows.

"The Chinese people use these nuts in various ways. They are to be had roasted of street venders in Central China cities; they are eaten boiled, tasting somewhat like a Jerusalem artichoke; they are made into various pastries and puddings, some of the latter being very popular among foreigners in China."

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In times of sudden disaster men rise to these supreme demands of life. But may we not call attention at this time to those everyday acts of self-sacrifice by which many of these men who went down, built up the legacies which now belong to those they have left behind. May we not think that after seeing the women and children safe, the minds of some of these men dwelt with satisfaction upon the help that would come to their families from their policies. And may we not think that the little hardships of meeting premium payments helped to build the kind of character which was able to meet this supreme test of courage?

The TRAVELERS INSURANCE COMPANY as the pioneer accident insurance company of America, speaks at this time about the value of accident and life insurance with no feeling of impropriety. It believes that it is doing a good work in lessening the hardships which follow in the wake of any disaster, great or small and in paying losses unparalleled in the history of accident insurance, the TRAVELERS feels that it is its duty to remind men everywhere, that at all times it is "Women and Children First," and that men respond to that call when heeding the familiar

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FISH ECONOMY, DELICACIES AND A WARNING

By PHEBE WESTCOTT HUMPHREYS

THE housewife with a Summer cottage by the sea, or a bungalow near a famous fishing stream, will learn many lessons in economy in the handling of large fish, that will prove helpful in making fish purchases after returning to her Winter home. One who has always bought her fresh cod and haddock, etc., in steak form, with the slices cut in the right proportion for broiling, or covering with bread crumbs and frying, may be startled when called upon to utilize a mammoth haddock fresh from the water. There will seem to be con siderable waste in the big head and the unmanageable back bone. It will not be an easy matter for the inexperienced feminine-fisherman to cut her steaks directly through the huge vertebra, but after slight experience in cutting up the fish and mastering the "simple principles of know-how" in utilizing all parts, she will find that not a single inch of this huge fish will be wasted.

Fresh fish chowder may be made one of the most delicious of Summer appetizers; but probably not one in a hundred (of the camp and bungalow cooks) knows how to prepare it to the best advantage—to secure the best flavors with the least waste. When it is a whole large fresh cod or haddock that is being considered, first clean the fish thoroughly, wipe dry, and cut off the head. Then, instead of attempting to cut steaks through the backbone—as usually found in the markets—cut the flesh evenly from the backbone in two long strips. This may then be cut into square steaks, and will be of convenient thickness for either broiling or frying.

Not a particle of the steak portion will be required for the chowder, and none of the apparent "waste" need be discarded. The very best of the fish gelatine, that makes deliciously flavored stock for chowder, will be found in the head; and the meat clinging to the backbone—even when most economically removed—will be sufficient to form a generous escalop.

Wash the head, remove the eyes; and, breaking the backbone into two or three inch pieces, put the head and the bones over the fire in cold water; and after bringing to a boil, simmer gently for half an hour, or until the bones of the head fall apart. When strained, this stock will form a richly flavored chowder by adding to each cupful of stock one small onion finely minced or grated, one small potato cut in tiny cubes, adding just before serving a little sweet milk and thickening in the proportion of half a teaspoonful of flour and a quarter of a cupful of milk, to each cup of chowder; have the flour stirred smoothly into the milk, add after the onions and potatoes are thoroughly cooked, then flake into the chowder some of the particles of white fish from the boiled bones.

This will form a clear white chowder. For those who prefer the flavor of bacon, and a rich yellow chowder, brown very thin slices of bacon in a frying pan, add the minced onion and the flour, and brown slightly before adding the fish stock and the potatoes. Season with pepper and salt; and just before serving add a dash of horseradish.

What a famous camp cook designates as "escaloped sea food," is a combination of fish and oysters with sometimes a few finely chopped clams; mixed with cracker

crumbs and baked in a mold. The fillets of fish picked from the big backbone of the cod or haddock will be ample to form a generous escalop even after a portion of it has been used for the chowder. The fish may be used alone if there is sufficient quantity when hungry campers or bungalow company demand big escalops, or it may be used with oysters, or with a combination of oysters and clams where sea food is plentiful, and may be had for the catching. Butter the mold or—when made in quantity—a large baking pan, place in it a layer of fish, and a layer of finely sifted cracker crumbs, or rolled bread crumbs, the layer of crumbs being dotted with particles of butter. For those who like the flavor, a little onion should be grated over each layer of crumbs; or lemon juice may take the place of the onion. Fill the pan with alternate layers of the fish and seasoned crumbs, adding a little pepper and salt to each layer. Alternate the fish layers with a layer of oysters if desired, and when the baking pan is full, moisten with a cup of milk, or better still with a cup of oyster or clam juice if convenient. Have the top layer of buttered crumbs, and bake half an hour in a hot oven.

AN IMPORTANT PRECAUTION

For the city housewife who must purchase her sea food from the markets, great care is necessary in the selection and the preparation of fish in warm weather. Dishes served as nourishing food may become a dangerous poison in the hands of inexperienced or careless cooks. Fish of every sort are supposed to be more desirable than meat as a Summer diet; as it is known that they are not so heating, and are equally nourishing. With necessary precaution the fish diet may be made very acceptable throughout the hot weather; but beware of cold storage fish, or of any that is not known to be fresh.

In buying fish in hot weather, carefully examine the eyes, the gills and the flesh. The eyes should be full and clear, the gills red, the flesh firm, and the skin and scales bright. Then, after buying a perfectly fresh fish, see that it is kept on ice until it is used. If it is not desirable to keep them in the ice box with other food because of the "fishy odor" imparted to milk, butter, etc., have a piece of ice wrapped with the fish. The methods frequently resorted to for keeping fish over night by "salting down" or wrapping in a cloth wet with vinegar, will not be wise: as fish becomes stale and unfit for food more quickly than we realize.

Medical experts assure us that it is more dangerous to eat stale fish than stale meat, because the moment that decomposition sets in, in the flesh of a fish, exceedingly poisonous products, possibly compounds of phosphorus, begin to form. The poison is an irritant, and its effects are usually first a severe attack of indigestion, then great coldness of the body, and nervous disturbance and depression. Another effect of the poison, still more serious, begins with nausea, severe and protracted vomiting, compression of the pulse, great lowering of the temperature, cramp and diarrhoea, sometimes ending with convulsions.

The slight decomposition of meat does not produce these poisons, and accordingly "high" meat and game may be eaten with comparative impunity. But it should be kept in mind that fish, the moment decomposition sets in, becomes actual poison; and that the further the decomposition proceeds, the more poisonous the fish becomes.

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ARCHITECTS: Descriptive details of Morgan Doors may be found in Sweet's Index, pages 910 and 911.

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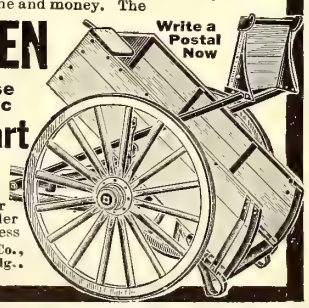

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NEW BOOKS

ART, ARTISTS AND LANDSCAPE PAINTING. By W. J. Laidlay. New York: Longmans, Green & Co. 1911. Cloth, 8vo.; 305 pages. Price, $1.75 net.

Mr. Laidlay's book deals not only with the technique and difficulties of oil painting, but—in a general way—it touches on the education, life, and status of the artists of to-day, and on the advantages and drawbacks incident to the life of the professional artist. Moreover, the book is unlike other works in this class in that it suggests to the student things to be avoided, a welcome chapter being devoted to this subject alone. Mr. Laidlay's *Art, Artists and Landscape Painting* can heartily be recommended to any student of the fine arts.

AN ENCYCLOPEDIA OF GARDENING. By Walter P. Wright. New York: E. P. Dutton & Co. 1911. Cloth, 12mo. Illustrated. 323 pages. Price, 35 cents.

Gardening as a healthful and agreeable recreation, as well as a source of income has made a notable advance in recent years. Thousands follow it as a pleasant pastime, many others as a means of livelihood. Readers find a happy association in plants and books. Poets gain inspiration from flowers. Artists learn that the making of gardens is an art to painting beautiful flowers. This excellent and handy encyclopedia of gardening is bound to find a hearty welcome among a large circle. Its scope embraces all the flowers, fruits, vegetables, ferns, palms, trees, and shrubs in general cultivation, and will prove invaluable to the garden beginner and to the experienced gardener as well. Moreover the book is beautifully printed and well illustrated.

THE PRACTICAL BOOK OF ORIENTAL RUGS. By G. Griffin Lewis. Philadelphia: J. B. Lippincott Company. 1911. Cloth, 8vo. Illustrated. 360 pages. Price, $4.50 net.

The aim of the present writer has been practical—no such systematized and tabulated information regarding each variety of rug in the market has previously been attempted. The particulars on identification by prominent characteristics and detail of weaving, the detailed chapter on design, illustrated throughout with text cuts, thus enabling the reader to identify the different varieties by their patterns; and the price per square foot at which each variety is held by retail dealers, are features new in rug literature. Instructions are also given for the selection, purchase, care and cleaning of rugs, as well as for the detection of fake antiques, aniline dyes, etc.

In furtherance of this practical idea the illustrations are not of museum pieces and priceless specimens in the possession of wealthy collectors, but of fine and attractive examples which with knowledge and care can be bought in the open market to-day. These illustrations will therefore be found of the greatest practical value to modern purchasers. In the chapter on famous rugs some few specimens illustrative of notable pieces have been added.

In brief, the author has provided within reasonable limits a volume from which purchasers of oriental rugs can learn in a short time all that is necessary for their guidance, and from which dealers and connoisseurs can with the greatest ease of reference refresh their knowledge and determine points which may be in question.

THE MUSICAL AMATEUR. By Robert Haven Schauffler. Boston: Houghton Mifflin Company. Price, $1.50 net.

This delightful volume which is quite out of the ordinary run, is, as its author explains, intended as a book on the human side of music. It is a book for the listener as well as for the composer and performer and brims over with personality, and a winsome personality at that. In this delightful monograph each chapter is more beguiling than its fellow. Among such chapters one will find "The Creative Listener," "The Wearing Qualities of Music" and "The Amateur Art." One is justified in recommending this work to musicians as a volume entertaining to amateurs as well as instructive and interesting.

THE NEW HISTORY. By James Harvey Robinson. New York; The Macmillan Company. 1912. Cloth, 12 mo. 266 pp. Price $1.50 net.

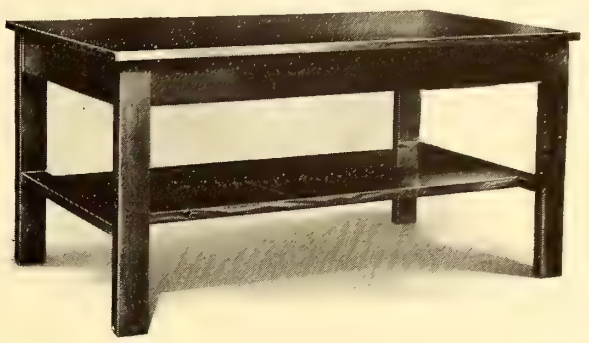
Professor Robinson's valuable contribution to the literature of historical study in the form of the volume of essays, "The New History," clearly points out the necessity of our deserting the old straw-methods even yet current, and of turning to history as something that should help us to understand ourselves and our fellows and the problems and prospects of mankind, in which aspect history's usefulness has, in the past, been most commonly neglected. Professor Robinson's volume should be read and followed by everyone interested in intellectual progress.

THE WAY OF THE BUDDHA. By Herbert Baynes, M.R.A.S. New York: E. P. Dutton & Co. Cloth; 16mo.; 132 pages. Prices, 60 cents net.

The object of this little book is to give the reader a succinct account of an Eastern sage whose doctrine of the Path has been accepted by millions of the human race, and whose influence is still felt at the ends of the earth. In "The Way of the Buddha," Mr. Baynes has succeeded in doing this admirably.

ITALIAN SCULPTORS. By W. G. Waters. New York; George H. Doran Company. Cloth, 8vo. Illustrated. 281 pages. Price, $2.00 net.

This volume deals with the Italian sculptors and smiths of the most momentous period of the history of art, from the Pisani and their fore-runners to the successors of Bernini, 1150-1690. Its purpose is to give a complete biographical and critical review of the development and progress of Italian Sculpture up to the end of the golden age. Hitherto, as a general rule, the subject has been presented to the American reader in individual biographies or dissertations on separate schools of sculpture. Great artists are naturally given liberal space; but others, makers of the beautiful and interesting, who have failed to win wide popularity, are generously treated, with the object of giving their merits a more general appreciation. With regard to the attribution of uncertain or unsigned works, the conservative attitude has been maintained. For the ready reference of students and travelers in Italy the book is arranged alphabetically, under the names of artists, and indexed under the names of towns in which objects of art interest are to be found. It has also a well-arranged index of anonymous sculpture and is very fully illustrated and may be recommended as one of the most helpful art books of the year.



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CHIMNEYPIECES AND INGLENOOKS. By Guy Cadogan Rothery. New York: Frederick A. Stokes Co. Cloth; 8vo.; illustrated; 239 pages. Price, $1.50 net.

The decided revival in the interest taken in designing and decorating chimneypieces make the present volume a welcome addition to those that have already appeared in the excellent "House Decoration Series." In "Chimneypieces and Inglenooks" Mr. Rothery has carefully traced for the reader the development of the fireplace and what one might call its façade, and has pointed out in his book the chief features characterizing successive periods in different countries. In various lands fireplaces have been, at least since the twelfth century, a fairly good index of the genuine art appreciations of the age in which they were built and beautified. This volume is copiously illustrated, well arranged and one to be recommended to everyone interested in the subject of home decoration.

A BOOK ABOUT ROSES. By S. Reynolds Hole. New York: Longmans, Green & Co., 1911. Cloth, crown 8vo. Illustrated. 324 pp. Price, $1.25 net.

"He who would have beautiful Roses in his garden must have beautiful Roses *in his heart,*" so says the author of this delightful book about Roses. And this is true. Throughout its pages this volume is marked by an intense enthusiasm for its subject and to the Rose grower, amateur or professional, we recommend it heartily not only for the information it contains, but likewise for the true literary touch to its contents. The illustrations, in half-tone and in color, are superior to much work of the sort that has been published by makers of less beautiful books than this one from Dean Hole's pen.

ON THE ART OF THE THEATRE. By Edward Gordon Craig. Chicago: Browne's Bookstore. Paper boards; 8vo. Illustrated; 296 pp. Price, $2.00 net.

Seldom has a more stimulating book than "On the Art of the Theatre," by E. Gordon Craig, reached the desk of the present reviewer. The author says therein that he dedicates the volume to the single courageous individuality in the world of the theatre who will some day master and remould it. Mr. Craig's distinct purpose in the book at hand seems to be the promulgation and unfolding of his personal theories concerning the art of the theatre. "We are not concerned with what is to be effective," writes Mr. Craig, "and what is to pay. We are concerned with the heart of this thing and with loving and understanding it. Therefore approach it from all sides, surround it, and do not let yourself be attracted away by the idea of it as an end in itself, as costume is an end in itself, of shallow management or any of these things, and never lose hold of your determination to win through to the secret, the secret which lies in the creation of another beauty, and then all will be well." The reviewer recommends this book to the artist-reader, especially for the chapter entitled, "The Actor and the Uber-Marionette," in which Mr. Craig urges the necessity of the artist gaining complete control over his materials, the result thus being an intelligent statement and a work of art; he must never leave anything to chance, because the result would be a premature or haphazard statement. One will not agree with Mr. Craig everywhere throughout the book, and now and then—perhaps often—will disagree with him decidedly. Nevertheless, it is a book worth reading.

PATRIOTIC PLAYS AND PAGEANTS FOR YOUNG PEOPLE. By Constance D'Arcy Mackay. New York: Henry Holt and Company. 1912. Cloth. 16mo. 223 pages. Price, $1.35 net.

The one-act plays for young people contained in this volume can be produced separately, or may be used as links in the chain of episodes which go to make up indoor pageants. There are full directions for simple costumes, dances, and music. Each play deals with the youth of some American hero and these plays are recommended as suitable for schools, Summer camps, boys' clubs, historic pageants and festivals, patriotic societies, and social settlements and playgrounds.

MAKING A LAWN. By Luke J. Doogue. New York: McBride, Nast & Company. 1912. Cloth. 12mo. 51 pages. Price, 50 cents net.

Although this little book contains hardly more text than a short magazine article, its writer is an authority on his subject and the condensed information he presents the reader will serve as a primer to the planner of the home grounds.

THE MONTESSORI METHOD. By Maria Montessori. Translated by Anne E. George. New York: Frederick A. Stokes Company. 1912. Cloth. 8vo. Price, $1.75 net.

Dr. Maria Montessori's methods, as practiced in Rome, Paris, New York and elsewhere, have created a sensation in the educational world, and will, perhaps, revolutionize child education. This book is an authorized translation of her Italian work, giving a full and inspired exposition of her ideas, methods and materials, with important new matter by Dr. Montessori. Among the foundation stones of the system are the development of individuality in the child in ways quite different from the usual methods, and the careful training of the senses as a basis for future mental associations. Children of four have learned to write in six weeks. When Montessori's pupils are transferred to the graded schools, they are better prepared in the required subjects than older pupils of the regular system, and have in addition a poise, a self-control, an accuracy and an initiative which fit them for rapid advancement. The system is the product of years of scientific experiment, that it is based not on abstract theories, but on a study of the nature of the individual child, and that its purpose is to develop self-dependence and to encourage the growth of strong, complete human beings, physically, mentally and morally.

THE STORY OF AVIGNON. By Thomas Okey. New York: E. P. Dutton & Co., 1911. Price, $1.75 net.

This delightful story of the quaint French town of Avignon is the latest volume to appear in the Mediæval Towns Series. "The Story of Avignon" presents in the main a sequence of disconnected scenes, or acts, of many dramas, great historic figures—the Raymonds of Toulouse, Louis VIII, popes and anti-popes, emperors and kings, Robert the Wise, Petrarch, Rienzi, Saint Catherine of Sienna, Joan of Naples—a scene or scenes of their trouble or tragic lives in the little hill city on the Rhone. They have their brief passage before the footlights; they pass away to other stages and are seen there no more. Mr. Okey has presented a record of all these things in an extremely interesting and clear manner, making the volume not only of value to the student but entertaining to the layman as well.

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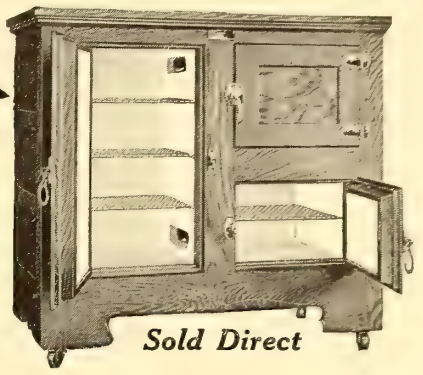

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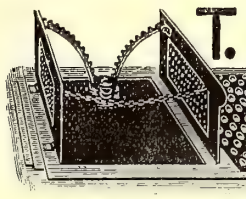
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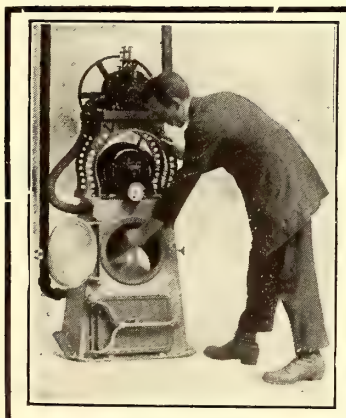
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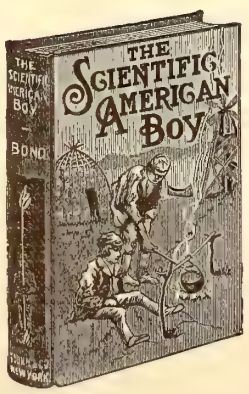

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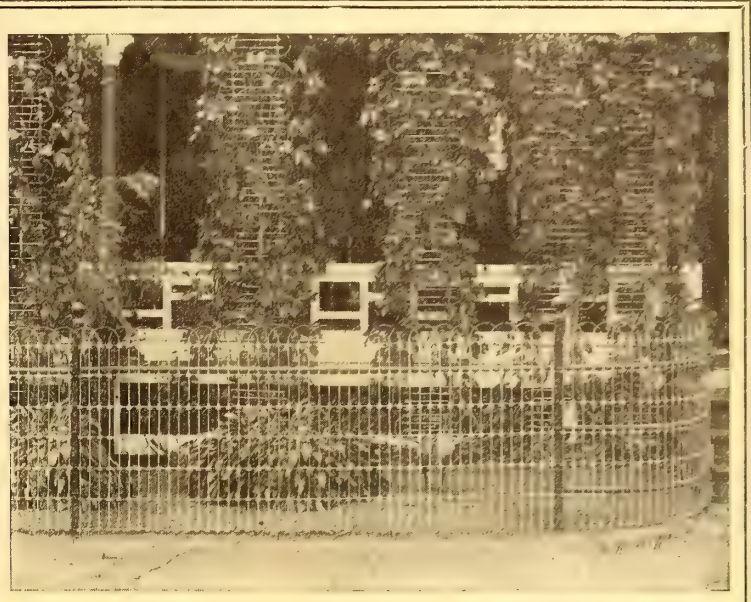

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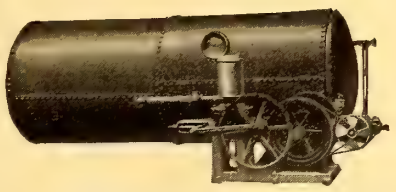

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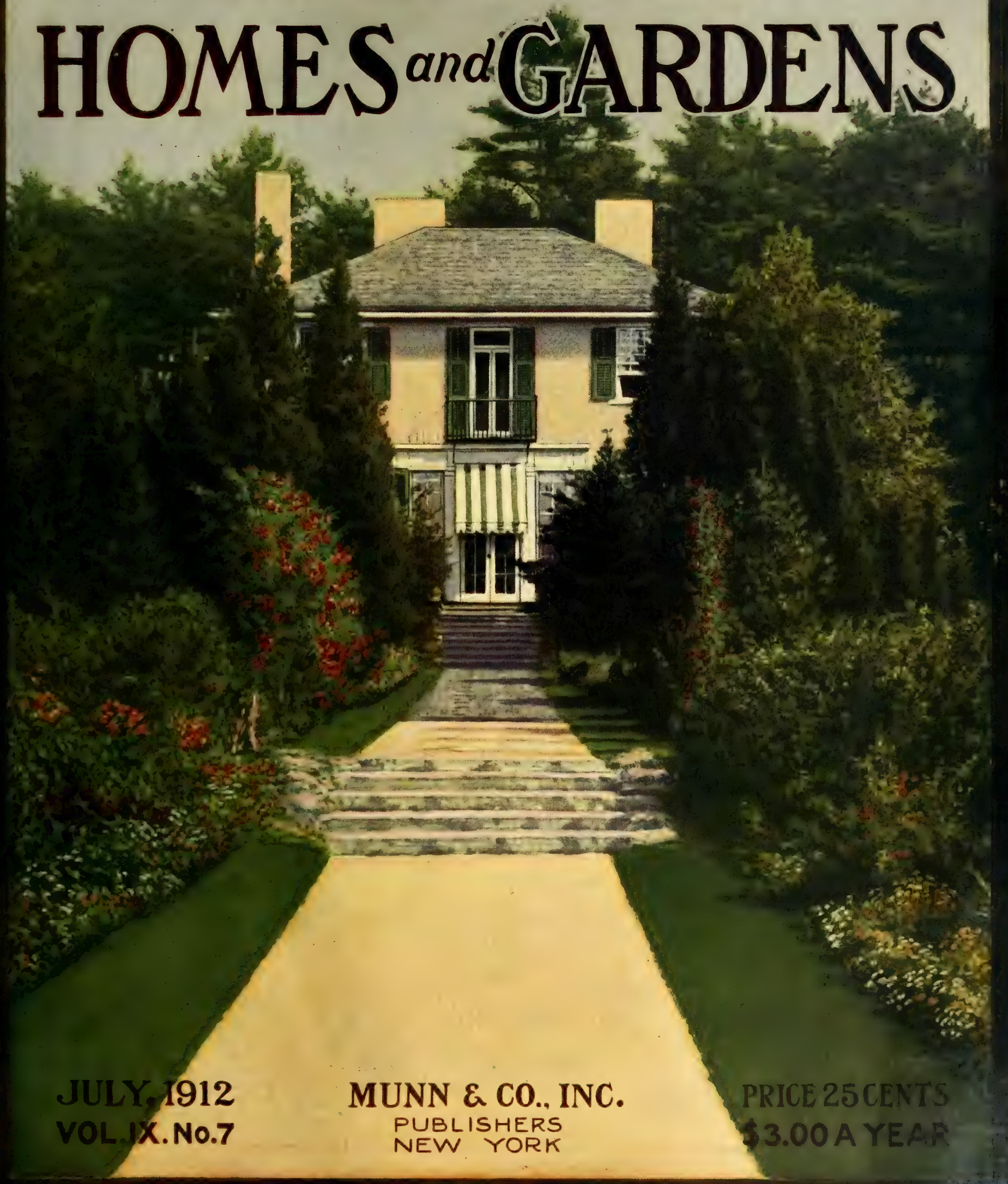

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MID-SUMMER POULTRY WORK

By E. I. FARRINGTON

MANY hens are kept through the Summer at a loss, not laying an egg for weeks. It is advisable and profitable to cull the flock in June or early in July, instead of waiting until Fall. Such birds as seem to be out of condition, with pale combs and a disposition to take life easy, might as well be gotten rid of now as later; the cost of the grain they would eat will be saved. This does not mean sick birds, of course, but simply those which have laid prolifically for a long season and which must have a protracted rest. It hardly pays to try to fatten them, either, at this time of year.

Sometimes a radical change in feeding will start a flock laying. If commercial feeds are being used, growing mash may be substituted for laying mash. If the birds have been confined, the same result may follow if they are given a wider range with an abundance of grass. However, there will always be a certain number of birds which will refuse to lay no matter how much they are coaxed. If the flock is a small one, most of them can be picked by close observation, and should be disposed of. It is well, also, to get rid of the male birds, except such as are to be kept for breeding purposes, and they should not run with the hens. Eggs keep better when they are not fertilized. Sometimes a male bird which is to be kept for breeding purposes the next season may be placed with a farmer and given free range for the Summer, an excellent plan for all concerned, including the rooster.

Some poultry-houses which are excellent for Winter use, because they keep the fowls warm, are extremely hot in Summer, even when they have open fronts. The remedy is to make an opening in the rear wall just under the eaves, so that there will be a circulation of air at all times. A hinged board may be dropped over the opening in the event of a driving rain coming up, but there will be few nights when the opening will not be a distinct advantage in keeping the hens comfortable. Shade is also necessary in the hot months. Some poultry-keepers plant sun flowers to provide shade, while others grow vines over the fences. In lieu of anything better, strips of burlap or bagging may be stretched over poles.

An abundance of green food is essential at all seasons, but especially so in Summer. One of the simplest ways to provide it is to have a grass-catcher fitted to the lawn mower and to throw the clippings into the poultry yard. If there is a surplus of clippings, they may be saved for Winter use by spreading them on a grain bag in full sunlight for several days until they crackle when handled, after which they may be stored in barrels or boxes. Greens from the garden will be devoured with eagerness. A few rows of Swiss chard will furnish a liberal supply of greens, for the leaves grow again when picked. A small patch of dwarf Essex rape may be planted for the express purpose of growing green food for the occupants of the poultry-house. It matures in a few weeks and new plantings at short intervals will provide a succession. Very

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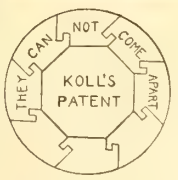

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liberal feeding of rape is said to make the egg yolks somewhat light-colored, but the average amateur need not worry about this.

Where only a small flock is kept, a little bed of oats, Swiss chard or any green crop which grows rapidly may be made in the poultry yard and covered with chicken wire fastened to a board set on edge at each end. Then the hens will be able to eat the green stuff only as it grows to a point where they can reach it through the wire. The best plan I have found, is to open the gate to the yard about an hour before darkness comes and let the birds have the run of the grounds. They do not wander far but devote themselves to consuming grass. Naturally a watchful eye must be kept on them so that they will not wander into the garden, but they are made welcome in the corn patch.

It is a great advantage to have double yards, so that one may be dug up and planted with a quick-growing crop like oats while the birds are confined in the other. Then there is no danger of the yards becoming foul, something to be carefully guarded against. If there is but a single yard, it should be plowed or spaded once a month. A hand-plow is excellent for this purpose. Unless the soil is very light and open, it is best to first rake or scrape up the surface accummulation and remove it; used in the garden, it makes an excellent stimulant for the growing vegetables.

Feeding in Summer calls for no special departure from the regular routine, except that the corn ration should be reduced in very hot weather. It is not necessary or advisable to cut out corn all through the Summer. It is the best grain there is. When feeding cracked corn, though, care should be taken to have it sweet and good. The same advice applies to beef scraps. The latter are needed, even when the hens have free range.

In Summer, when the days are long, the hens are off the roosts at an early hour and ought to have their morning meal at once. If the owner is averse to such early rising, he should scatter grain in the house after the birds have gone to roost the night before or else make the last feeding of the day so bountiful that there will be some grain left over for morning.

If the hens have free range, they should be fed before they are allowed out of the houses; otherwise they are likely to satisfy themselves largely with grass and whatever else they may find outside and not eat enough grain, in which case the egg yield will fall off. Some poultry-keepers like to feed a mash in the afternoon. This may be given about 5 o'clock and a feeding of whole or cracked grain made an hour or two later. It is surprising with what avidity the birds will devour hard grain shortly after they have had their fill of mash.

If the fowls have a wide range, no litter is needed in the house in Summer and the grain may be scattered in the grass. If the flock is closely confined, however, a litter is needed, so that the birds will be obliged to work for what they eat. A little grain may be sowed in the yard to induce the hens to scratch there. Some of it will sprout before it is scratched up, and will then be eaten with zest.

There is no better place for the growing chicks than an orchard or a cornfield. In the latter they will find many bugs and worms and will be protected from hawks. In hot weather it is best to house them in coops without floors. They should not be crowded and should not be allowed to run in the grass until the dew has dried off.

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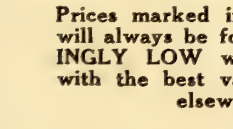

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While in the care of hens, they will not wander far afield if the hens are kept confined to the coops; later they will need to be fenced. It is always well to start with a fence that the chickens cannot scale, for if they do not form the habit of going over fences when young, they will not be likely to acquire it later.

After they have been weaned, the chicks should be taught to roost on wide perches. The lighter breeds usually require little teaching, but it may be necessary to put one or two older chickens or even hens with chicks of the heavier breeds. The perches should be wide in order to avoid the danger of giving the chicks crooked breast bones—three inches is none too wide. Some growers of market chickens never allow them to roost so that there will be no cases of malformation of this sort. Young birds are prone to crowd, though, when they sleep on the floor and become unduly heated as a result.

The chickens require green food in abundance. Sometimes it is necessary to give green rations even to young birds with a grass run, for after the season is well advanced, the grass becomes very tough. Of course, shade must be given, with plenty of fresh water. Fresh ground should be chosen for the chicks each season, unless they have a grass run, for foul ground has been responsible for many chicken growers' troubles.

THE SANDAL TREE

ACCORDING to the *New York Evening Post* "the Sandal tree (*Santalum Album*), from which most of the sandal wood oil of commerce is obtained, occurs in a limited area in southern India. Other species in the Hawaiian Islands, Fiji, New Caledonia, and Australia furnished a considerable supply of the oil at one time, but were apparently soon exhausted. The white sandal tree is cultivated in India, and because of its value and the large demand for the oil, efforts have been made for a long time to extend the area over which it is grown. These have rarely been successful, chiefly, it now appears, because of the curious life habits of the tree. It is a root parasite dependent on the roots of other plants for its food. Planted alone it dies by starvation. An account of an investigation of its parasitism, conducted by M. Rama Rao, has recently appeared in the *Indian Forest Records*. He found no less than 150 alien species acting as hosts for the sandal tree. It appears to prefer evergreen trees, and when attached to their roots becomes an evergreen itself. But it can flourish on deciduous roots, and in this case sheds the leaves annually as does its host. It is quite probable that this investigation will furnish information of importance in the cultivation of the tree—perhaps lead to a notable increase in the annual supply of sandal-wood oil."

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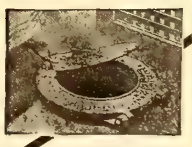

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PAINTING CEMENT BUILDINGS IN GERMANY

THE publication in *Daily Consular and Trade Reports* of an article on building methods in Hamburg contains interesting notes in regard to the class of paint used on cement structures in Germany that will be of interest to American readers.

"It is claimed that large amounts of money are expended in the United States in painting cement and concrete, with unsatisfactory results, the paint either peeling or discoloring rapidly.

"According to information obtained from builders and architects, the principal precautions taken in northern Germany to prevent the peeling of oil paints is to defer their application until the cement is quite dry. When it is intended to apply color on outside walls which are still damp, water paints are used which are weather proof and which can be washed if necessary. These colors, necessarily, are not impervious to moisture.

"In his textbook for 1910 Dr. Glinzer, director of the State Building School in Hamburg, says that to make oil paint adhere to cement the surface of the material should be coated with diluted sulphuric acid (1 part concentrated acid to 100 parts of water), which afterwards must be washed off and the surface allowed to dry. Or the surface may be covered with diluted silicate of soda (wasserglas), the solution to be 1 to 3 or 1 to 4, and applied three times in succession. Still another method is to apply two coats of building 'fluat' at least twenty-four hours apart. Practical builders state, however, that the applications of sulphuric acid are not made by them, and that such success as they have results merely from careful work and the use of good materials. Dr. Glinzer also says that oil paint should be applied to cement in the following manner: The surface is given one coating of linseed-oil varnish, to which is added a first coat of white lead when the varnish is dry. A second coat is then added, also containing white lead together with more or less coloring matter, as the building laws forbid the use of absolutely white paint on the exterior of structures. In this climate the use of oil paints is recommended, as they are waterproof and present smooth surfaces which attract a minimum of dirt. Painting according to this method costs here about 10 cents per square yard.

Applied to iron, linseed-oil varnish when used by itself flakes off readily. It should be thoroughly mixed with red oxide of lead, caput mortuum, or ocher graphite. This mixture serves as a first coat after the perfectly clean and dry surface has been gone over with the ordinary hot linseed-oil varnish. When the dead color has dried, another coat of the color desired is applied. The oil, being partly converted into resin, combines with the coloring material, making a thick coating that is the more impervious to water accordingly as the color is finely ground or not. Lead should be used when the paint is exposed to water.

The water colors so frequently used in Germany as a rule have silicate of soda as their base. These colors can be used on cement, plaster of Paris, brick, or glass. Liquid casein paints are easily worked and are said to be durable. The discoloration of cement buildings results very frequently from the class of cement employed rather than from the color applied afterwards."

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¶ The book is concisely written and should be studied by every manager and employer of labor who is interested in reducing labor cost.

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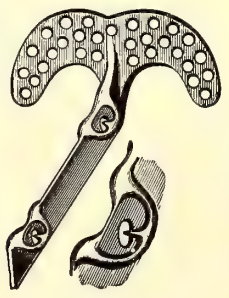

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THE MOST EXPENSIVE WOOD IN THE WORLD

CABOLE (*Anisophyllea cabole* Henriq.) is the name of a beautiful tree belonging to the mangrove family of plants, *Rhizophoraceæ*. It is a native of the west coast of Africa, and is very common on the island of St. Thomas, where it is found generally in low or medium elevated portions. In the southern part of the island the tree grows so near the shore that its roots occasionally strike salt water. A more ideal situation is on the southern slopes of the mountains, where in its mature state it forms a very large tree. Individual specimens may be seen here and there which are from 120 to 140 feet high and from 4 to 7 feet in diameter 4 feet above the ground. Most of the trees are very much smaller, for the reason that practically all the mature trees have been cut down to make room for the cultivation of sugar cane. The large trees which are now to be found on these islands have been spared for the purpose of shade or wind break.

The wood, which is very highly esteemed, has a yellowish or light chestnut-brown color with darker colored streaks. It is very firm and durable, and when sawed into boards has the appearance of teakwood (*Tectona grandis* L.) It is easily worked and is susceptible to very high polish. When carefully filled and varnished it takes on a most beautiful appearance. The specific gravity of this wood is about 0.780 or 48.5 pounds per cubic foot. It is the most costly wood in the world, and is used at present only for making high-grade furniture and objects of luxury. This wood also serves as material for making fancy doors, parquetry, and interior finish of very fine residences.

Cabole was first sold in the city of St. Thomas in 1885, and immediately became very popular for all sorts of fancy work. The first boards which were brought in the market were not sawed, but split with wedges. Several of the merchants in St. Thomas at once attempted to introduce this beautiful wood into the English and German markets, but the cost of preparing the logs for shipment was so great that the project failed. The wood retained its popularity in St. Thomas, and the price soon went up to about $3,500 per cubic meter. Cabole may, therefore, be considered the most expensive wood in the world.

THE MAKING OF COPPER STENCILS

TO make copper stencils for marking laundry, etc., stencil sheet copper is used (the thinnest that is made) and dipped in a tin dish containing melted bees' wax so that both sides will be evenly covered with a thin coat of the wax. The monogram, device or figure is then drawn on ordinary white paper, the reverse side of the paper is blackened with graphite, and it is laid on the center of the stencil plate and by means of a blunt needle the design is lightly traced. The design will now be visible on the thin wax coating. With the same blunt needle or point trace the monogram, but not completely, the lines being interrupted at regular intervals, to form "holders," so that after etching the monogram cannot fall out. Then the stencils are laid in a dish, fresh nitric acid poured over it, and the air bubbles removed with a goose feather. In barely half a minute the monogram will be eaten through. This may be observed by holding the stencil up to the light. It is then rinsed off with water and the wax coating removed by heating and wiping it off with a cloth.

Many of your trees may appear sound and yet have some hidden disease that will eventually kill them causing your property to depreciate in value. This tree, "The Old Sycamore" at Wells College, Aurora, N. Y., was not thought to be in serious condition. The Davey Experts found several cavities and gave the tree a new lease of life. Before it is too late to save your trees, have them examined.

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The railroad carries passengers in train loads by wholesale, in a public conveyance, and the service given to each passenger is limited by the necessities of the others; while the telephone carries messages over wires devoted exclusively for the time being to the individual use of the subscriber or patron. Even a multi-millionaire could not afford the exclusive use of the railroad track between New York and Chicago.

But the telephone user has the whole track and the right of all the way, so long as he desires it.

It is an easy matter to transport 15,000 people over a single track between two points in twenty-four hours. To transport the voices of 15,000 people over a single two-wire circuit, allowing three minutes for each talk, would take more than thirty days.

The telephone system cannot put on more cars or run extra trains in order to carry more people. It must build more telephone tracks—string more wires.

The wonder of telephone development lies in the fact that the Bell System is so constructed and equipped that an exclusive right of all the way, between near-by or distant points, is economically used by over 24,000,000 people every day.

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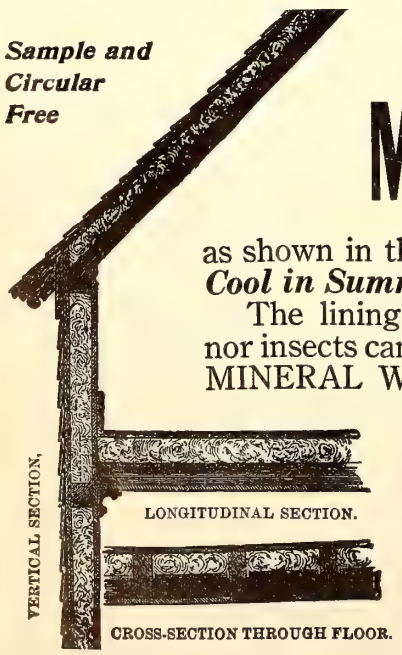

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OLD SHEFFIELD PLATE

A RECENT decision of the courts in a case tried at Belfast should be of interest to American purchasers of antiques, particularly "old Sheffield plate" or "Sheffield plate."

The prosecutor, acting with the support and co-operation of the Cutlers Co., and the Sheffield Master Silversmiths' Association, brought a series of six summonses against a dealer in Belfast, complaining that "he did apply to certain articles a false trade description, namely, 'Old Sheffield plate' or 'Sheffield plated,' contrary to the merchandise act of 1887."

The case establishes the point that the term "old Sheffield plate" or "Sheffield plate" implies vessels made of copper and coated with silver by means of fusion. This process was the precursor of electroplating, and died about seventy years ago. Very little ware is produced in Sheffield by this method to-day. Fine specimens of genuine Sheffield plate bring fancy prices, and at the trial it was stated that large quantities of both the real and counterfeit are bought by Americans.

The articles in question were shown to be electroplate on copper by a process patented about the year 1853. None of the articles were Sheffield plate, Sheffield plated, nor old Sheffield plate, and did not come from Sheffield. The magistrates considered the offenses clearly proven.

In view of the great interest which collectors take in old Sheffield plate, it is interesting to note that so-called reproductions of this plate are manufactured in Birmingham. These are said to be produced in the same manner as the original Sheffield plate; and if after manufacture the pieces are rubbed down and brought to the same apparent age as the old plate, even experts, so one has informed me, would find it difficult to distinguish them from the genuine, although they could always distinguish electroplate on copper from the ware manufactured by hammering or fusing silver upon copper.

Since the passage of the American tariff act of 1909 reproductions that have been exported can be recognized by having the word "England" on them.—*U. S. Daily Consular and Trade Reports.*

THE AMBER INDUSTRY

ACCORDING to the American Consul-General in Berlin most of the German amber is found in the waters of East and West Prussia, and the industry is a monopoly of the Prussian State. The raw material may be gathered only by authorized persons and in accordance with regulations prescribed by the Royal Amber Works at Konigsberg in Prussia. Raw amber in pieces of two inches and more is very scarce in Germany and the most of it is reserved for the home market. Only occasionally are a few pieces of the raw amber sold to foreign concerns.

Pressed amber, which is also produced at the Royal Amber Works, is made by a secret process. Small but good pieces of amber are melted to about 150 deg. Celsius and then molded under very high pressure into various forms and plates. The plates can be sawed and turned and manufactured into different objects. Forms in the shape of cigar tubes and mouthpieces for pipes, etc., are exported in large quantities to the United States. The artificial amber, often called ambroid, has the appearance of amber, and the untrained can scarcely differentiate between them.

THE EDITOR'S NOTEBOOK

AMERICAN HOMES AND GARDENS FOR AUGUST

THE readers of AMERICAN HOMES AND GARDENS will have in store for them one of the most interesting issues of the magazine with the advent of the August number, which will be devoted mainly to the subject of Remodeled Houses. The opening article, "The Remodeled Farmhouse," will be beautifully illustrated, exteriors and interiors, with an exterior view of an old made-over New Jersey farmhouse before remodeling.

BEATRICE C. WILCOX contributes an excellent illustrated article on "A Barn That Became a House," being a description of one of the most picturesque remodeled buildings to be found on Long Island. "Woven Furniture," by Harry Martin Yeomans, will show various types of willow furniture and woven furniture suitable not only for the Summer home but for the all-year-round home as well. Mr. Yeomans is a well-known writer on subjects connected with interior decoration, and the present article will be one that is well worth reading. One of the most beautiful country homes in America, a country house that has been transformed from an old mill, is described by Robert H. Van Court in an article illustrated by reproductions, photographs and floor plans. The double-page feature for the August number will be unusually handsome.

"A LITTLE Colonial Farmhouse That Became a Modern Home," is the title of an article by Sarah Witlock Jones, which is a narrative of the discovery of an old, tumbled down, Colonial farmhouse which the writer transformed into a beautiful little country home. This will be one of the most interesting features of the magazine.

F. F. ROCKWELL, one of the foremost horticulturist writers in America, contributes an article on "Geraniums," which is adequately illustrated by photographs, that will prove helpful not only to the garden beginner, but to an experienced window or outdoor gardener as well.

THE August number will contain extremely interesting departments on home decoration, gardening and also the department of "Helps to the Housewife," conducted by Elizabeth Atwood, whose articles have attracted widespread attention. Numerous other articles will appear in the August issue, which will have one of the most attractive cover designs in color that the magazine has shown this year.

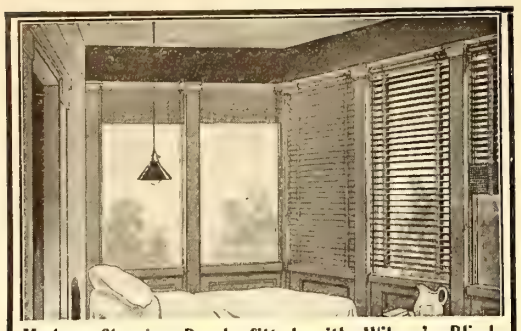
CIVIC BETTERMENT OR PETTY INTERESTS?

IN our enthusiasm for the civic betterment movement, we must not lose sight of the fact that those who devise æsthetically excellent plans for improvement often fail to take into account, what *The Builder* calls "the shopkeepers' desire for self-advertisement," the product of our swiftly moving times. When the mass of our people have been educated to a sense and a practice of the higher duties of citizenship it will not become so necessary for the committees of civic improvement societies to make compromises in order to maintain harmony in obtaining concessions to their advanced points of view. As it is, the energy expended in inducing one's neighbor to come into line in any local betterment plan often discourages those who do not feel that they have the strength to fight for a strip of lawn, a bit of park land, well kept streets, country roads freed from the hideous tyranny of the sign-board, public playgrounds, broad avenues, lighted highways and the like, when opposition seems strong and intelligence blind in the matter. Nevertheless the more dauntless workers we have in this direction, the sooner the public will become educated to a happier attitude, and petty interests will be turned into communal unity so far as the matter of public weal is concerned.

FOURTH OF JULY

THOSE with whom true patriotism, nationalism and devotion to one's country are held to be qualities that only the development of a strong, dignified and constructive sentiment can give proof of their worth, have done much to bring about a proper sense of the fitting manner of celebrating each succeeding anniversary of the signing of the Declaration of Independence. We, in common with other highly civilized nations, make manifest our national feelings on such occasions by as vast an amount of noise as we are able to command, and although one need not quarrel with that—exuberance, joyousness and enthusiasm are not silent factors—we do decry the perversion of the spirit of jubilation to the level of boistrousness and slaughter. Year after year Fourth of July has been made by careless, heedless American citizens to chronicle victims of the insane stupidity of placing danger in the hands of little children and incompetent or foolhardy grown-ups. We do not forget the thrill of lighting firecrackers when we were little folk, but we also remember just how careful we had to be and how anxiously we were watched lest our inexperience bring woe to our little fingers, sorrow into the hearts of our elders. But in the years that have passed since then firecrackers have hidden dynamite within their wrappers, and the little noise-makers of yesterday have been superseded by what, compared to them, may well be considered little less than bombs. Fortunately the cry for sane Fourths had gone out through the land with good effect. Public sentiment has been aroused against permitting slaughter to represent a national celebration and the Quiet Fourth has come to mean, not a day of whispering and bated breath, but a day sufficiently devoid of hideous perversive din to enable one to hear and be stirred by the solemn dignity of the cannon's roar as we salute, through trained, responsible hands, the memory of the birth of the American nation, and recall, with tender thought, the noble lives that have been given to the cause of the maintenance of our national integrity, in which thought we try to forget Folly fumbling with gunpowder.

Inadvertently in the editorial note appearing in AMERICAN HOMES AND GARDENS for June, 1912, wherein readers of the magazine were invited to submit photographs and descriptions of their home gardens, this invitation appeared to be restricted to subscribers. However, every reader of AMERICAN HOMES AND GARDENS, whether a subscriber or not, is cordially invited to submit photographs and descriptions of home gardens to the editor.



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SELECTING A COUNTRY HOME

A WRITER in the *Sun* gives the following suggestions to the urban dweller who, listening to the call of life away from the oppression of bricks, mortar and pavements ungraced by Nature's own adornments, seeks a country home. "Before you start out," says he, "on a tour of the suburbs to select a home for the Summer, spend at least one evening in drawing up a summary of what you will need.

"How far is the house from the station? How many minutes is the station from the office? What is the commutation rate? Is there a good train service? These are the first questions to be considered.

"The inspection of the house may be deferred until after the town has qualified. The next questions are how many rooms has the house and what is the rent? The arrangement of the rooms, the condition of the mechanical equipment, including plumbing, water pipes, gas pipes or electrical wiring and heating apparatus, the dryness of the cellar, the state of the wall coverings—all these factors and more of the same sort should receive careful attention. But there are other points hardly less important to the health and happiness of the family that you might overlook through inexperience or because in previous Summer quarters everything was perfect.

"Then consider these things: Which point of the compass does the house face? Does the sun get directly into the rooms where it is wanted, or does it pour too freely into those where it is not wanted in the Summer time? What is the direction of the prevailing winds, do they reach the front porch, the living quarters and the bed chambers, or do they waste themselves on the rear?

"Where are the shade trees with relation to the sun and the breezes? Do they properly protect the sunny side? What is the general lay of the land? Is the house on a hilltop, on a slope, on a broad level stretch or in a valley? If on a hilltop you are sure of the breeze, but not so on a slope, on a plateau or in a valley.

"Because of the slope of the ground, the direction and directness of the sun's rays or the thickness of the woods on the windy side you might find yourself in an oven all the beautiful adjectives in the real estate prospectuses to the contrary notwithstanding.

"Are there breeding places for mosquitoes near by, any stagnant pools or places where water may settle after heavy rains?

"These will answer the mosquito question more decisively than screens on the neighbors' porches. If the house is in a valley has it a good drainage system all about? Are there provisions to make the water run away from the house and outbuildings rather than toward them?

"Then once more as to the house itself. Are its windows broad, high and airy; have they shutters or blinds which can be used or not as you please, and are they well equipped with screens in a good state of repair? If there is an attic is it well ventilated? Attics are often storage chambers for air heated by the roof that may make an otherwise cool house insufferably hot day and night. Do the porches unduly darken the best rooms of the house or are there overhanging roofs to shut out the light and the breeze?

"In short, consider not only the mechanical perfections and imperfections of the house itself, but also the topography of the neighborhood, and take nothing on hearsay, but see it all for yourself before signing the lease."

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AMERICAN HOMES AND GARDENS

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Mid-Summer Poultry — New Books — Editor's Notebook

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President

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Publishers
361 Broadway, New York

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Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

Copyright 1912 by Munn & Co., Inc. Registered in United States Patent Office. Entered as second-class matter June 15, 1905, at the Post Office at New York, N. Y., under the Act of Congress of March 3, 1879. The Editor will be pleased to consider all contributions, but "American Homes and Gardens" will not hold itself responsible for manuscripts and photographs submitted

The well-ordered garden-terrace is a mid-Summer delight to every home, and such a one as this is an example that is worth emulating

AMERICAN HOMES AND GARDENS

Volume IX — July, 1912 — Number 7

A Massachusetts Country Home

By Roland G. Anderson
Photographs by Thomas E. Marr

THE beauty of the suburbs about Boston is due very largely to the variety and interest of the country, the good taste shown in the greater part of the domestic architecture and the existence of a great number of old New England homes, many of which have been landmarks for generations. A short distance from Dover, Massachusetts, and facing one of the old Colonial highways, is the quaint farmhouse which, in its restored and beautiful form, is the home of Mr. George D. Hall. The alterations to the house, which were planned and carried out by Mr. Howland S. Chandler, an architect of Boston, have involved almost no departure from the style of the original building. Additions were, of course, necessary to change the structure built for a farmhouse into a modern country home, but good taste and a certain sympathy for the old work, has led to making these additions conform in letter and spirit to the original design in all the features.

The country home of Mr. George D. Hall near the town of Dover, Massachusetts, was once an old farmhouse, and was skillfully remodeled

Bedroom with its antique furniture

Dining-room retaining old chimney

No early Massachusetts home was really complete without the vast chimney, which was often the chief feature of the house. The climate of New England includes much weather which is exceedingly cold and the fireplace was therefore a detail of the first importance. There, too, the settlers had come from a country where the fireside stood for the symbol of home life and where the "roof-tree" spirit was much stronger than in countries where life is lived more largely out-of-doors. All this had a certain effect upon the building of their homes, and a study of these old farmhouses would almost lead one to the belief that the home was really built about the chimney as a kind of shelter to the numerous fireplaces which it almost invariably contained.

Mr. Hall's country home possesses all the characteristics of its type—the earnest and severe style which was a fitting expression of the life of the times. The roof is broad and plain and the eaves are cropped closely to the body of the

The living-room is large and well lighted, thoroughly attractive and homelike

View of the living-room

View of the den or study

building. Walls are covered with clapboards painted white, and windows are hung with blinds painted green and are filled with small panes of glass, dictated, no doubt, by the difficulty and expense of securing larger panes rather than by the desire for the picturesqueness of effect which we so highly value to-day. One strongly suspects that the "eye-brow" window set in the roof and the broad veranda across the front of the house and around one end may be recent additions and concessions to modern demands, but so true a regard has been held for consistency of design and the general fitness of things that they heighten, if possible, the old-fashioned quaintness of the building.

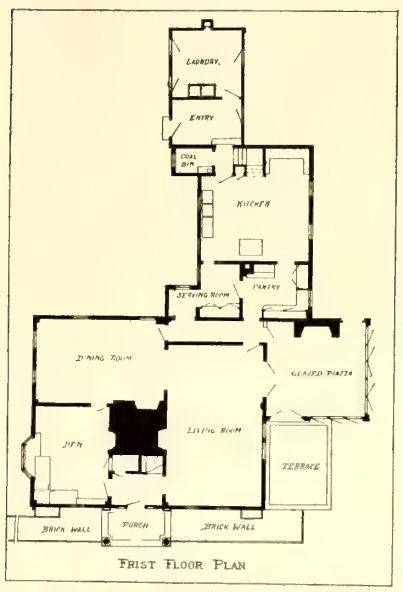
The chief entrance to the house is through a wide and hospitable doorway with "side-lights" in true New England style. The tiny hallway just within, with the narrow stairway, which, with many turns, leads to the floor above, is also characteristic of a farmhouse of the time and was made necessary, no doubt, by the fact that the huge "stack" chim-

The sun-room, which is a glazed piazza, contains a fine fireplace

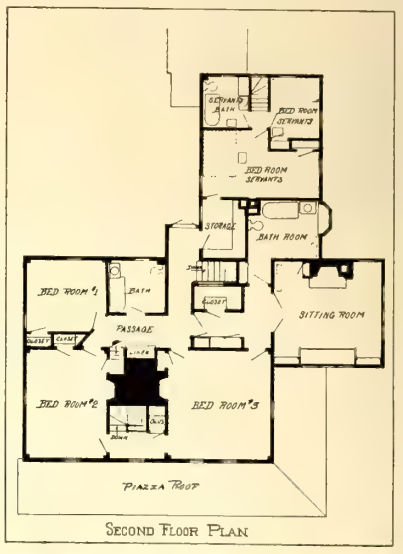
ney with its many fireplaces must be placed in the center of the house so that the arrangement of rooms and stairways must be left somewhat to circumstances. The space at one side of the entrance hall is devoted to a large living-room—the "keeping-room" of a New England farmhouse which, no doubt, was a lineal descendant of the "great hall" of a home in England. The rest of the main floor is given up to the dining-room and a little library or study called a "den." All of these old rooms are beautiful and extremely interesting with their old fireplaces, that in the dining-room having the old-fashioned brick oven in which the housewives of New England did their baking. The ceilings in these rooms are, of course, quite low and are slightly uneven, which adds greatly to their interest. Woodwork about windows and doors and in paneling about mantels and chimneys is of the old-fashioned New England variety, quite guiltless of ornamentation and painted white, in keeping with its traditions. Opening from the living-room is a large square piazza which has been enclosed with glass in small panes. This room is provided with a fireplace which, like the entire chimney-breast, is made of brick with a bas-relief in ivory-tinted plaster built right into the masonry.

A panel in relief has been set in the brick-work above the mantel shelf of the fireplace

The second floor of the main building is arranged in a delightfully rambling fashion with a pleasantly planned sitting-room, which has a fireplace and is so placed that it faces three directions and receives the sunshine during the entire day. There are three bedrooms, two bathrooms and closets.

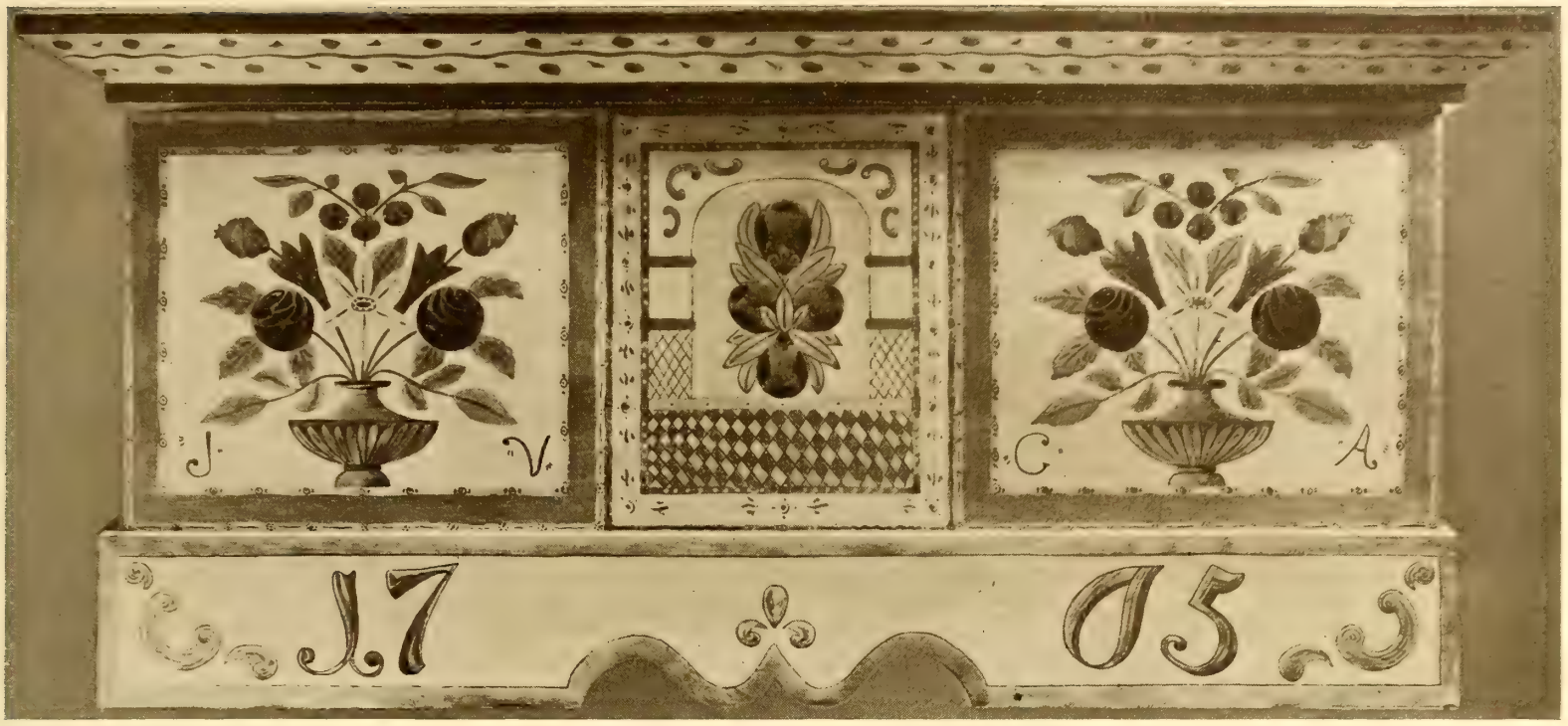


FRIST FLOOR PLAN



SECOND FLOOR PLAN

The house, though entirely remodeled, retains the charm of the old Massachusetts farmhouses



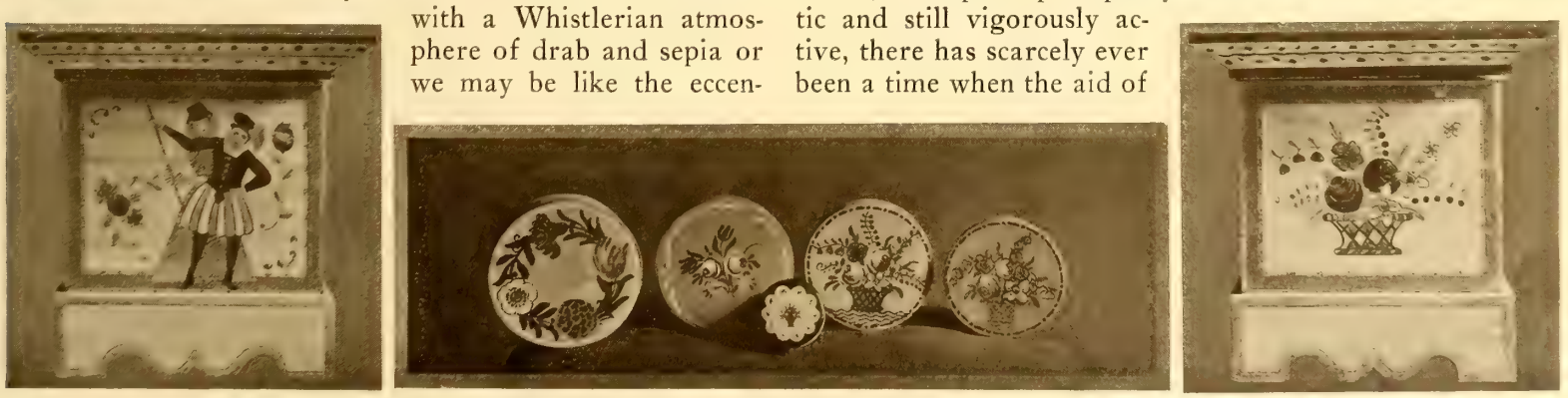
A carefully made replica of an Eighteenth Century Bavarian bride's dower-chest, painted in colors

Painted Furniture

By Abbott McClure and Harold Donaldson Eberlein
Photographs by T. C. Turner

DO you ever think of furniture as having personality? Whether you do or not, it has personality and has it to a marked degree. After all, personality is only an outward manifestation of character, in the case of furniture at any rate, and if furniture has not character we haven't a jot of reason for preferring one sort to another. Of course, if a chair is simply a chair, a table a table and a chest a chest, if we suffer from such a Peter Bell-like lack of all aesthetic sensibility, we may deny personality to furniture; otherwise we must concede it. Our tables and chairs, our sideboards and cabinets, all our household goods in fact, are refined or vulgar in feeling; they are patricians in mien or simple peasants as the case may be, but they all have distinctive personality and one of the chief factors in conferring that personality is the element of color and its manner of application. Color and life are inseparable. From our cradles up we are surrounded by it. We cannot escape from it if we would, and few of us would wish to if we could. From the lowest depths of savagery to the height of artistic refinement, from north to south and from east to west, from the remotest past to the present moment, color and color combination have always been of paramount concern, and the way we deal with them determines whether or not we possess that much coveted and oft disputed quality—good taste. We may choose to surround ourselves with a Whistlerian atmosphere of drab and sepia or we may be like the eccentric gentleman who, in flat defiance of all accepted conventions of male attire, designed himself an eiderdown padded greatcoat of cerise samite quilted with bottle green; do what we will we cannot escape from the color problem.

So then, since color and its application are matters of so vastly important and universal consideration, we can readily understand how men came to embellish the furniture in their houses with designs and colors pleasing to their eye. Especially was this the case where the furniture, chest, cupboard or what you will, was severely simple in form and line and suggested the need of something to relieve its austerity of aspect. In the Middle Ages, however, at which period we begin to hear of painted furniture in Europe, such was the passion for gorgeous color that even ornately carved chests and cabinets or armoires were heavily overlaid with gilding and rich diaperwork picked out in scarlet and blue, chocolate and green, or gaudy with heraldic devices blazoned in all their proper tinctures. If you would have a lively picture of a baronial hall made ready for a banquet or my lady's bower with its varied garniture, look in the pages of Christine de Pisan or at some monkish illumination. From those englamored days, when primal traits of character and primary colors held the field together, to the second half of the Eighteenth Century, when Adam, Heppelwhite and Sheraton gave fresh impetus to the vogue for painted furniture, an impetus perceptibly felt on our side of the Atlantic and still vigorously active, there has scarcely ever been a time when the aid of



End panels of the Bavarian dower-chest, four Bavarian kitchen boxes, and a small Biedermeyer jewel-box

pigment has not been employed to supplement the craft of the cabinetmaker or, perhaps, the simpler handiwork of the carpenter. From the Eleventh Century onward to the Renaissance a popular vigorous sense of color ensured the use of painted decoration for the more important articles of furniture, irrespective of their form.

With the Renaissance regard for form became supreme and the taste for varied and vivid color fell into abeyance among those that attended the behests of fashion—and be it remembered that the mutability of fashion is nearly as apparent in matters of furniture as in types of wearing apparel. However, notwithstanding the defection of the devotees of ruling styles, the fondness for painted ornamentation lived on in many quarters, ready to flourish forth again sturdily at the least encouragement. Especially among the Dutch and Bavarian peasantry was the tradition of furniture painting kept alive and, though both style and execution are at times extremely crude, we find virile spontaneity and originality of conception to claim our respectful attention if not always our admiration.

Cabinet decorated in Bavarian style

In the latter part of the Seventeenth Century a wave of the so-called "Chinese taste" brought in the craze for lacquered decoration. Lacquered oriental boxes and chests were eagerly sought and ruthlessly broken up to supply panels for the adornment of cabinets. Experiments in the manufacture of lacquer, aided by the suggestions of returned Eastern missionaries, were not altogether unsuccessful in their imitations and before long furniture entirely covered with lacquer and decorated in Chinese patterns was produced in abundance.

Among the most successful makers of a new sort of furniture, coated with color and covered with varnish, was one Martin, a French coach painter of the early Eighteenth Century, whose business theretofore had been to decorate coach doors with heraldic blazonings and flower borders. His varnish was a fine transparent lac-polish susceptible of taking on a beautiful surface. The work associated with his name is usually found on furniture such as tables or bookcases, as well as on small articles like needle cases and snuff boxes. Though his lacquer formula is said to have died with him, his imitators and pupils painted and enameled furniture of various kinds after his manner. Sometimes in the vernis-Martin work the excellent solid color—frequently a beautiful green—of the table or cabinet or chair is unbroken by any ornamentation save the gold mountings.

About the middle of the Eighteenth Century the brothers Adam, most notable English architects, began to design furniture to harmonize in spirit and style with the stately houses

Decorated chair of "English Empire" pattern

An old chair restored and decorated

Queen Anne lowboy, chairs and mirror, belonging to a Philadelphia collector. The ground work is a dark blue lacquer, the decorations in gold

they were building. No detail was too trifling to claim their attention and, as a result of this fortunate combination of the callings of architect and decorator, we have some of the choicest creations of that period, admittedly the hey-day of cabinet making. The brothers Adam allowed themselves great latitude in painting their furniture in colors. Where the piece was to be wholly colored it was usual to select some neutral hue such as slate, gray or dull green, pick out the less important features of the design in lines of color "very much as a carriage builder is wont to relieve his wheels," and then garnish the main portion of the design by such painted detail as the decorator saw fit. Classic medallions and plaques, wreaths, festoons and urns were the subjects generally employed for embellishment. Very often only portions of the furniture were painted, leaving the natural wood exposed to view for the most part. This was particularly the case where satinwood was used, which was beautiful in itself and at the same time afforded an unusually delicate medium for painted decoration. Many of the plaques, cameos and panels of this old painted and satinwood furniture were executed by such artists as Angelica Kauffman and Cipriani and are exquisite in color and finish.

Heppelwhite and Sheraton followed the lead of the Adams in designing and advocating painted furniture at the same time they were putting forth their best productions in mahogany and inlaid woods. For the japanned or lacquered furniture, and for the pieces colored in the vernis-Martin fashion, what we should now call inferior or white woods were almost exclusively used. In addition to lightness they possessed the further recommendation of being easily worked. At all times furniture forms have been more or less influenced and modified by the kind of wood used but in the decadent part of Sheraton's career, and in the early Nineteenth Century, form was often completely sacrificed and dependence placed on paint to make up for the lack of shape and proportion. Both form and color unquestionably have their distinct functions and neither should be disregarded nor sacrificed.

Now, what has all this discourse anent long past and gone styles of painted furniture to do with us? What present application shall we make of it to our own needs and inclinations in the garniture of our homes? Never was there a period when more attention was paid to interior decoration and furnishing than now. During the mid-Victorian era, with its dreadful Eastlake, neo-Jacobean and Centennial episodes, popular taste seemed to be dead. Now, however, there has happily been a revival, a rejuvenation, and unwonted material prosperity has supplied the wherewithal to make it potent for good. Natures, artistically starved in that jejune period, were ready to welcome deliverance with open arms when the renaissance of sound taste began. Since that time the movement for better things has grown steadily. Along with the reawakening, an increasing and commendable catholicity of outlook has more and more led people to accept and cherish whatever has real merit. For a while, indeed, only Colonial furniture—whatever we may mean by that term—was in favor, but now our horizon has sufficiently broadened to admit good things of whatever date. Thus, what with the assiduous collecting and importing on the part of antique dealers, and the reproductions and adaptations by workers in the several arts and crafts, we are confronted with an array of painted furniture

ranging in date of style from the Norman Conquest down to the latest cry from Germany.

Leaving out of consideration the imported antiques painted with rare skill and prohibitive in price, we may confine ourselves to two or three styles that seem to be specially suited to our conditions. To begin with, the painted furniture in Adam, Heppelwhite and Sheraton patterns is worth close attention. As a rule the form is good and the color and decoration pleasing. In the latter respects there is almost unlimited scope for variety of treatment. However, one word of caution is necessary. In purchasing such furniture it is better for several reasons to take modern reproductions, which are usually faithfully and well copied. The genuine antiques in this style are often so battered as to necessitate endless touching up at great expense and the initial cost is apt to be out of all proportion to intrinsic worth. Furniture of this sort is particularly suitable for bedrooms and drawing-rooms in Summer homes by reason of its lightness and cheerful coloring. Painted satinwood chairs, tables, sideboards and cabinets are always charming and suitable for any place where they will not be subjected to severe usage. Lacquered work after Queen Anne designs is deservedly coming more into vogue. The shapes are excellent while the coloring and decoration are extremely attractive, the gilt ornament of Chinese landscapes being applied on a groundwork of dark blue, red, black or green. Much of this furniture is imported from England, but a good deal is made and decorated in America and very well made, too.

It is a far cry, perhaps, from the courtly furniture just considered to the homemade contrivances of Bavarian and Hungarian peasants, but the quaint style of decoration employed opens up a field so pregnant with delightful possibilities for us that we should be great losers by ignoring it. The peasant furniture of Eastern Europe, whether the makers be Magyar, Teutonic or Slav, is naïve in decoration, full of vital originality in design, elemental vigor of color and unweakened by over refinement. Colorings, pattern and construction of this painted furniture are traditional and instinct with national spirit. The wood commonly used is pine and the lines simple and direct. Often his own craftsman, the peasant chose easily fashioned pine as the most suitable material to work in and, prompted to indulge in gorgeous decoration both by the bareness of the wood and his own innate love of brilliant color, he fully availed himself of the free range afforded for play of fresh, unfettered imagination. In design and execution the Hungarian pieces are, perhaps, a trifle more angular and assertive than the Bavarian work. Decoration of this type is especially suitable for chests, boxes, presses and cupboards. It matters not if they are as plain as "Plain Jane" and made of mean wood, Bavarian painted ornament will help them mightily in nine cases out of ten. If we go into a strange room and discover a cupboard or chest of this kind, it may strike us at first as crude, but by and by we find our eye wandering back to it and we realize its growing charm. Its straightforward naïveté lays strong hold upon us and we should feel its removal a positive loss. To be sure, we cannot always get these pieces from their native source, but our craftsmen can faithfully reproduce them in color, design and feeling, and though they may not have the patina of age they create the same ingenuous atmosphere of homely comfort and cheer as the originals.

The Bavarian bride's dower chest shown in the illustration is a replica of one in the National Museum in Munich. It is two and a half feet long, a foot wide and a foot and a half high, including the base. On a cream colored ground the bright-hued flowers, figures and bands stand out vividly. The body of the chest is free of depressions or projections of any kind. Wide yellow decorative bands divide the front into three panels. In the two side panels stiff sprays of flowers and leaves spring primly from vases; in the central panel is a bunch of four plums. A comical little man with a

(*Continued on page 261*)

An exceptionally fine satinwood settee from a private collection in Philadelphia

Among the "properties" of the pageant the old-time stagecoach with its narrow windows, swinging middle seat and drop steps was prominent

The American Pageant

By Adelia Belle Beard
Photographs by the Author

OUT-OF-DOOR life, now so popular in America, may have brought the pageant into vogue; or possibly we have imitated England in this revival of one of the oldest and simplest forms of the drama, but whatever its cause or its source the pageant is most certainly here, and we, contributing to it a new life, new themes and a wealth of enthusiastic fervor all our own, have gone pageant mad. Our country, the eastern part especially, has caught the infection in its most virulent form and is now in the throes of a new aspiration with a wild desire to beat the Old World at it own game of pageant making.

Small New England towns and villages, some of whose inhabitants have never seen the inside of a theatre, are enthused almost out of their traditional New England reserve and are competing with one another in the bigness and splendor of their out-of-door dramas where the *dramatis personæ* is made up of the town people themselves; shining lights among our actors and actresses are offering their services gratis if the pageant is given for a purpose of which they approve and certain of their requirements are complied with; schools, which now accept dramatics as an educational factor of no little value, are using the pageant more than the play, and yet people are asking: "What is a pageant?"

The writer's answer to this question is, that a pageant, *per se,* is a story told by a continuous series of living, moving pictures, a living panorama produced out-of-doors amid natural scenery and natural surroundings. When the old models are followed events are largely represented by allegory, or rather the subjects are, in the main, treated symbolically. Like mural paintings, pageants are more imposing and effective when they assume a decorative form. The grandeur and importance of the themes frequently chosen require simplicity and nobleness of treatment and a too realistic rendering would belittle them.

"Rushing forward in the dance as though blown by the winds"

From the Twelfth well into the Sixteenth Century pageantry flourished in England, frequently in the form

The symbolic dance was introduced at intervals throughout the pageant

of religious miracle-plays. These were performed first by the clergy, but became still more popular when later the people took them into their own hands and they were enacted by trading companies which were the representatives of particular trades. Each company had its own play and these plays were combined into one great pageant, giving the entire Bible history from Creation to the Judgment Day. The originals of some of these plays are said to have come from France, many were taken directly from the Bible and from legends of the saints.

The various trading-companies provided each its own stage in the form of a scaffold on four wheels. In these days we would call it a float. This scaffold had two rooms, an upper and a lower one. The upper room, entirely open and without a roof, was used as a stage, the lower one for a dressing-room. As in our modern parades, these floats followed one another over a given route, but instead of moving steadily along, each float made a stop in each street of the town long enough to enact its play, and was then wheeled to the next stopping place, where it reproduced its performance.

The first float gave the first play or chapter of the story exclusively and enacted it in every street. The second float followed the first and gave the second chapter, the third followed the second, and so on until the pageant was being played in every street and the audience at each stopping place saw the whole performance from beginning to end. How many floats were required for the telling of the story has not been recorded.

A group of tiny wood nymphs

Though most of the principal events were pictured on the movable stages the actors were not entirely confined to them, for at times, it is said, characters on horseback would ride up to the "scaffold" and others would "rage in the strete."

The costumes were mostly conventional. Divine personages were identified by gilt hair and beards, the demons by hideous false heads, the souls by black or white coats, according to their condition, and the angels by gold skin and wings. In other early English pageants heroes of mythology and history and the abstract ideas of morality or patriotism were represented in allegory by costumed figures, and the city of London refused to allow even the great plays of Shakespeare to supplant these exhibitions, so dear were they to the hearts of the people.

So far the American pageant has not been a free-to-all performance, nor has it trailed its splendors through the streets of a town; it has chosen, rather, to confine itself to a suitable place in the open where its audience can be seated, if not always with entire comfort, at least seated, and where the privilege of a seat and of viewing the pageant has each its own price. Our most ambitious effort in the past was the rendering several years ago of Jeanne d'Arc in the stadium at Boston with Maude Adams in the title role; what we may yet achieve in this line is beyond prophecy.

While classical subjects find favor, the most popular and pleasing to the people in general are themes taken from our own history, and indeed for Americans this is a wise choice. It opens a new field for American dramatists also which doubtless will be ably and perhaps grandly filled, for, like some of the best of the old writers, they will not deem it beneath the dignity of their profession to contribute to the people's drama, raise it to the highest standard and make it typically American. Though our history is not ancient it still has its myths and its legends, and state history, as well as national, abounds with incidents that can be picturesquely presented by pageantry.

For the old pageants a general prologue was spoken by a herald, but the modern method of giving in the programme a synopsis of events and an explanation of the symbolical renderings is more satisfactory. From the standpoint of the audience of to-day the nearer the pageant approaches the pantomime the better, for the story is more clearly understood when nothing is left to be explained by the dialogue or monologue, to which one seldom attempts to listen even if the untrained voices can, in the open air, make speech intelligible.

When before one stretches the great, wide, beautiful out-of-door stage, perfect as nature is perfect, a picture in itself, often filled with restless, gaily caparisoned horses, strange vehicles, oddly dressed men, women and children, what does it matter that one or two of the actors would try to put the situation into words, and who gives them a thought unless, perhaps, to wish they would have done and allow history to move along without waiting for them to say their little pieces. The shouts of the multitude, an important procla-

mation, or the cry of a single character is often effective; singing can also be introduced to advantage, but when long speeches or dialogues occur where there is little or no action the audience grows restless and remembers that the board seats are hard and the sun hot. Too much preliminary action for an unimportant result, such as a prolonged search for wood with which to make a fire, is also tiring to the audience strung up to the witnessing of large events. But let one picture follow another in quick succession, yet absolutely without hurry, and the people, actors and audience alike are carried along lightly by the sweep of events until the end of the pageant comes all too soon.

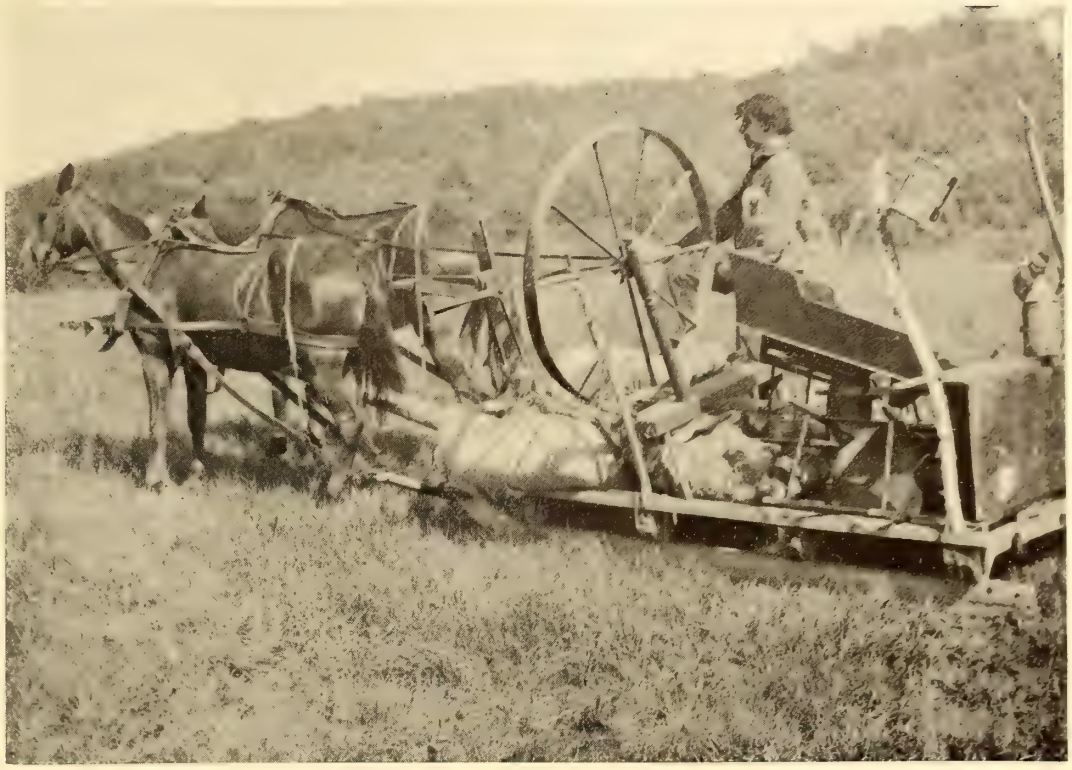
A successful pageant is well grouped. That is, when groups are formed they present a picture whose composition is good, and herein is found the need of an artist's eye, not necessarily that of a professional, but of one who understands composition. To the audience the stage is always a picture, however its groups of actors may shift and change, and though a group happens to be far in the background and is apparently unimportant, it should form a tableau pleasing in itself and one which falls naturally into place in the general composition.

Dress plays an important part in the pageant. To be successful the historical pageant must be correctly costumed and the actors attired strictly in the style of the period represented where the representation is to be literal. When allegory is employed the costume should be symbolical and fashioned to suit the subject, indicating at a glance the idea embodied, just as the costume of the Goddess of Liberty proclaims the freedom of a nation.

One of the most attractive features of this out-of-door performance is the dancing. It lightens and relieves the historical pageant as comedy lightens tragedy in some of the greatest of our plays, and it is seldom omitted in a successful pageant even when the story does not strictly call for it.

Way up in the hill country of Vermont the six little villages of Thetford lately combined to produce a pageant commemorative of the one hundred and fiftieth birthday of the township, and this historical pageant was made very beautiful by the dances. The history of Thetford in its principal events was told down to the present day, but the story commenced at the period before history began, when the place was inhabited only by spirits of nature; a most poetical opening for the story of sterner facts that followed.

The natural scene which the audience confronted was "a typical fold of the green hills, a narrow stretch of intervale and the curving line of the Connecticut River." The pageant opened with the appearance of the Nature Spirits. Clothed in shimmering costumes of pale green, pale blue, and silver tinsel, the water sprites immerged from the foliage on the river banks as if arising from the water below; then from the background came the spirits of the intervale, rushing forward in the dance as though blown by the wind. These were dressed in light, floating draperies of warm, soft, pastel tints; yellows, pinks, rose and violet, representing the fruits and flowers of the valley. Finally, coming down the hill far at the back, swaying and bending in the dance as the trees sway and bend in the breeze, were seen the mountain nymphs, dressed in greens and browns and bearing aloft in both hands sheaves of living green branches. When these three groups met and mingled in a dramatic dance, gracefully fantastic, the effect was indescribably lovely and the composition and blending of colors a triumph to the director and leader. Often the scene, with its dancing figures, reminded one of a painting by Corot, and when at times little butterflies fluttered among the dancers and groups of flowers sprung up in the background there seemed nothing lacking that would add to its beauty.



For the costuming of the Thetford Pageant, attics, old cedar chests and hair trunks of the combined six villages were ransacked and verily the result was a remarkable collection

The symbolic dance was introduced at intervals throughout the pageant. At one time the flaming spirit of war appeared, gleaming, naked sword in hand, and in a weird and cruel dance, announced the episode of the Civil War. Again the awakening of sleeping Thetford by Pageantry was represented in a dramatic dance, two characters only taking part, Thetford and Pageantry.

Apart from symbolical dances were the dance of the American Indians and later the old-time country dance, the Indian dance forming a connecting link between the fantastic undulating evolutions of the Nature Spirits and the prosaic pigeon-wings of the before-the-war period.

For the costuming of the Thetford pageant, attics, old cedar chests and hair trunks of the combined six villages

(*Continued on page 263*)

The little tots representing butterflies

Charles II period, 1680

Charles I period, 1630

William and Mary period, 1690

Old English Brass Hooks

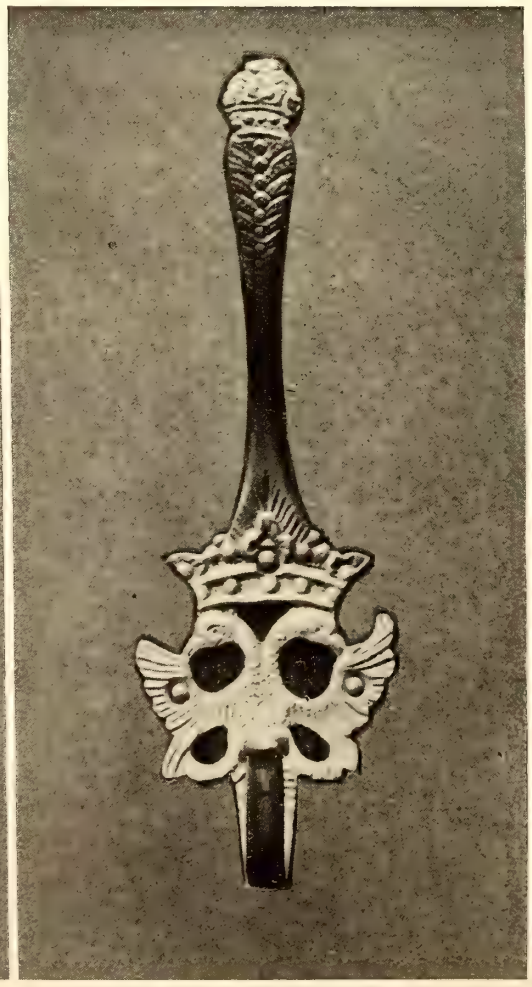
By William T. Phillips

THE brass hooks illustrated upon this page are modern reproductions of old English examples of earlier periods, which may now be had in America, the examples here shown having been imported recently. We are coming to interest ourselves more and more in the minutia of home-decoration, in the little things that play a modest part in home furnishings, but which, after all, are essential factors in many respects. Hooks, for instance, abound in every house, and how ugly many of them are—nearly all of them in fact. It is a pleasure therefore to come across so excellent a substitute for the hooks we have been hanging our hats, coats, gowns and other things on for the past two decades as is to be found in the brass hooks patterned after examples that date from the Seventeenth Century. One of these hooks is Dutch, but being brought to England at an early time was, we believe, copied by early English craftsmen, but others of the William and Mary, King Charles, and of the Georgian era were the work of early English designers and metal workers.

Georgian Period, 1730

One is pleased to note the revival of beautiful "house hardware" in evidence in this instance as well as in other contemporary productions. It is to be hoped that modern craftsmen will go one step further and give us more examples than we find at the present time of artistic metalwork designed for the house interior.

Dutch, *circa* 1700



Long hook, William and Mary period

Seventeenth century

The home of Dr. Dwight E. Marvin, at Summit, New Jersey, is an unusually successful example of the gambrel roof type of house

A Colonial House in New Jersey

By Robert H. Van Court
Photographs by T. C. Turner

THE never ending quest for the small house that is well designed leads one to country and suburban homes of every possible type. There are some architectural styles, however, which may be successfully used only for large and extensive buildings, for one can hardly imagine a small suburban cottage of Gothic or Italian Renaissance design. Other styles of architecture, upon the other hand, seem particularly suited to small country homes and other buildings of a somewhat intimate and domestic character, and of these types none is more popular or more widely used than what we know as the "Dutch Colonial" style.

The chief characteristic of this type, of course, is the "gambrel" or double hipped roof, but it is interesting to note that while this kind of roof seems to have been invented in America its use was not confined to the region immediately about New York where Dutch influence prevailed. It occurs also in numerous old farmhouses throughout New England, and several well-known examples are still standing near Medford, Deerfield and other old localities in Massachusetts. The famous Hancock Mansion, which for generations was one of the landmarks of Boston, was also built with a gambrel roof, somewhat high in pitch and lighted by dormer windows. A gambrel roof which is really Dutch, however, is almost invariably possessed of certain lines by means of which it may be readily identified. Its dimension from the ridge-poles to the point where the downward slope begins is nearly always much shorter than the length of the slope itself, while in the case of the New England example the two dimensions are very nearly the same. The slope of the Dutch gambrel drops with a very graceful curve—it is never precisely straight, as the New England roof invariably is.

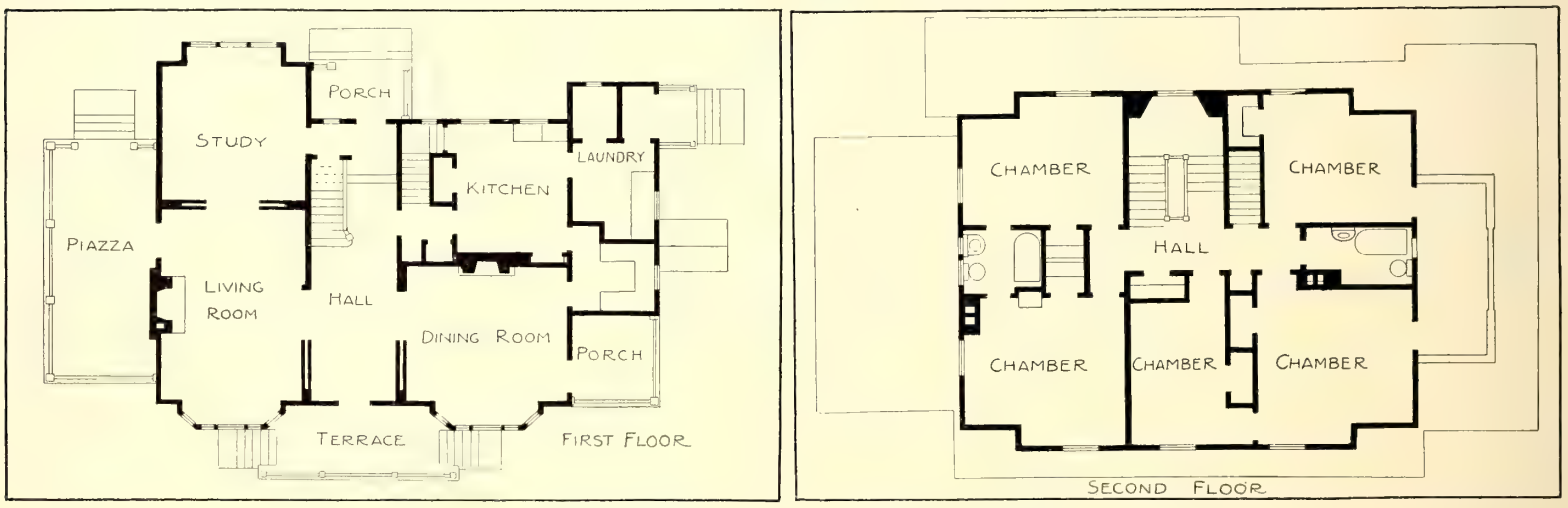
At Summit, New Jersey, Mr. Benjamin V. White, a New York architect, has built for Dr. Dwight E. Marvin a house which embodies the characteristics of the New England rather than of the Dutch gambrel roof, and which is in many ways a successful example of this very pliable style, and the place is particularly interesting by reason of the beauty of the site as well as the tasteful designing and planning of the house itself. A low hill or knoll rises gently from the roadway. The soil is rocky and in many places there are boulders which appear above the surface of the ground. A dense growth of forest trees and underbrush surrounds the house and affords a background, providing a delightfully rural setting for its carefully studied architecture.

Owing to the slope of the ground a straight walk directly from the street to the entrance doorway would have involved a flight of steps near the house. The approach has therefore been planned with a curving walk which enters the grounds at one side, avoiding the slope, and leaving the greater part of the space surrounding the house for a lawn

which has been so planted with shrubbery that the apparent size of the place is very much increased. The walls of the lower story of the house are of stucco, which also covers the foundation walls where they appear above the ground. The gable ends and the sweeping gambrel roof are of shingles with a slightly roughened surface which is either stained or left to acquire the weather worn appearance which exposure to rain and sunshine very shortly produces. The roof is here brought down very low, covering the entrance doorway and the two shallow bay windows which are placed at either side. A veranda placed at each end of the building extends its lines and preserves the formal balance of the house and the roof is broken by one long, continuous dormer which enlarges and lights the upper floor with even less breaking of roof lines than there would be had three or four smaller dormer windows been used. As seen from the roadside the interest of the house depends very largely upon the skill with which it has been placed amid its surroundings, the well-designed details of planning, such as the wooden blinds at the entrance door, the transoms and casements of the oriel windows and the simple but very decorative character of the railing of the veranda and the panels of lattice-work placed just beneath. These points of design are quite in accord with the principles of early Dutch colonial architecture, for what little interior decoration there is has been placed where it strengthens and emphasizes structural lines.

The hall and stairway with its wainscoting and graceful baluster and newel

Before the main entrance is a small porch with steps at either end rather than at the front, which is the usual method. The door itself is filled with six tiny squares of glass which light the hallway within, where the interior has been planned upon the same modified Dutch colonial lines which have been used for the exterior of the building. A broad hall divides the house and wide doorways open into rooms at either side. Just ahead, as one enters the hall, the stairway with its wainscoting and graceful baluster and newel leads to the floor above. Beneath the landing of the stairs is placed an arch in the old-fashioned manner, and just beyond is a Dutch door divided horizontally in the middle, which one feels sure leads into a garden where tulips, hyacinths and other bulbous plants bloom with the first breath of Spring. The walls of the entrance hall are covered with a foliage paper, woodwork is of white enamel and several old rush-bottomed chairs with straight backs painted in black and gold do much to carry out the old-



First and second floor plans of the Marvin house

The library is truly a roomful of books

The dining-room is bright and attractive

fashioned effect here welcome.

At the left of the hall are living-room and library. The living-room faces the street and the six windows which overlook the entrance are placed in a shallow oriel or bay window and are arranged with small panes in casements which open outward, as such windows should. The living-room also has a fireplace of very spacious and hospitable dimensions and a French window opens upon a broad veranda which is screened by tall growing shrubbery and flowering vines. Beyond the living-room is the library or study, which is placed upon a somewhat lower level than the living-room, so that one descends two or three steps in entering it. At the far end of the room are casement windows closely grouped—the walls are lined with bookcases which extend almost to the ceiling. A study or library should of course possess a literary atmosphere to a marked degree, and this is here accomplished by the shelves filled with books in bindings of many colors and other volumes upon an old-fashioned study table. Old chairs, some of them covered with leather, are grouped about and help to supply the note of comfort without which any library is merely a room filled with books.

Aspect of the house in the Fall of the year

Opposite the living-room is the dining-room, where more casement windows look out across the lawn and where another window reaching to the floor opens upon a small porch planned for the serving of meals out-of-doors. This veranda is screened with wire netting and is very close to a stretch of woodland into which a glimpse is given. The white woodwork of the dining-room includes a narrow shelf or plate rack which is carried around the room at the top of the doors and windows, and upon this narrow shelf are various old plates and tiles placed against the plaster frieze. The walls are covered with an old-fashioned flowered paper which creates a background for mahogany furniture of a very simple Sheraton pattern adorned with narrow strips of inlay, and the tints of both the furniture and wall covers are emphasized by the dark-toned rugs which cover the floor. In all of these rooms the lighting fixtures are side lights of brass with the electric bulbs covered by cut glass shades of a most attractive pattern.

(*Continued on page 264*)

A delightful vista is presented from the broad porch-terrace situated between the bays of the living-room and the dining-room

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SOME ATTRACTIVE PORCHES FOR THE SUMMER HOME

This unconventional bungalow is built of terra cotta hollow tile, covered with rough plaster, and was designed by its owners

An Unconventional Bungalow of Hollow Tile

By E. I. Farrington

PERHAPS all bungalows are expected to be unconventional, but if that be the case the one owned and occupied by Mr. John L. Hamilton of Wollaston, Mass., is exceptionally so. It was designed in all its details by Mr. and Mrs. Hamilton, who take especial pride in the fact that there is not a single dark corner in it, even the closets being lighted. The plans were made by Stewart and Marshall, architects.

The walls of the bungalow are built of terra cotta hollow tile and the exterior is covered with rough plaster. On the roof is one of the fire-resisting roofing materials now in common use, so that the house is practically fireproof.

Although the bungalow, with its wide porch in front and sun parlor at the rear, presents an attractive apparence from without, the interior arrangements are of greater interest. Being a true bungalow, the house has but one story. The living-room, which occupies the center, extends to the roof, and is lighted in part by small dormers. At the rear is a massive fireplace and at the front over the entrance-hall, a gallery which makes an ideal place for reading and writing. A group of latticed windows opens from this gallery and aid in giving light to the living-room.

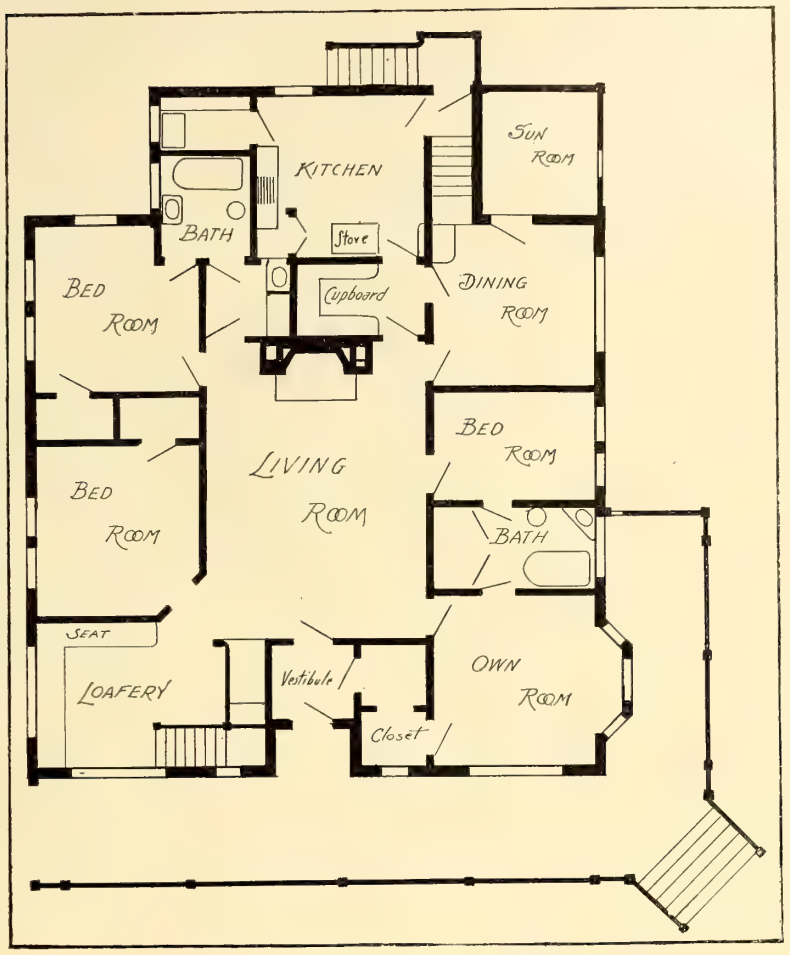
The "Loafery" has burlap-covered walls and built-in seats

Opening from the living-room are all the other apartments. At the same time the rooms on each side constitute a suite. At the right are two bedrooms with a bathroom between. At the left are two bedrooms with double closets between. These closets are very large and a door opens from one into the other, making what amounts to a secret passageway between the two rooms. Opening from the rear bedroom and from a hall leading to the living-room is another bathroom, thus providing for an unusual degree of privacy. There is also a lavatory in the little hall just mentioned and lighted by a window high in the wall looking into the kitchen.

At the right of the entrance vestibule is a coat-closet, a window from which opens into another closet connected with the owner's room. This closet has an outside window, so that both closets are lighted and can

be quickly and easily ventilated. In the bathroom are wide shelves for linen and other articles and a man's closet with a laundry basket.

The high windows in the front bedroom give privacy without the need of drawing shutters. These and many other windows in the house are hinged at the bottom and when opened are held by a chain or rod, so that the rooms may be ventilated at the top and without danger of the air blowing directly on the occupants. At a social gathering of men in the big living-room one evening cigars were lighted and the room soon filled with smoke. After the visitors had departed, the hinged windows in the gallery and in other parts of the house were opened and in ten or fifteen minutes the house was entirely free of smoke.



Plan of the hollow tile bungalow

A single chimney serves for kitchen range, fireplace and hot water heater, although there is a butler's pantry between the living-room and the kitchen. The pipe from the range is covered with asbestos and passes through the top of this pantry.

The square dining-room is so arranged that when the table is extended to its full length to accommodate guests, the maid may enter from the pantry, pass around the table and make her exit through the living-room door, which is close to the pantry. This has been found a convenient arrangement on many occasions.

Opening from one corner of the living-room is what the owner of this house terms the "loafery," perhaps as fitting a word as "den." It has green burlap walls, with a picture frieze, built-in seats and small high windows, making it altogether a delightful retreat. From this room the stairs to the gallery lead.

The house is fifty feet and six inches long by forty-two feet and six inches wide, so that a very large basement might be expected. As a matter of fact, only a part of the space has been excavated, making so much less to keep in order. In the basement is a laundry, a room for the maid and the main room, where the heater is located, and in one corner of which there is a little workshop. Special conditions governed the building of this bungalow, but it could be duplicated for from five to six thousand dollars, according to location. The great room of this house, occupying a midway situation, appears on plan form to be completely flanked on all sides. But instead of being pent, every outer part is a vassal to its interior lines, so commanding is its position, being just as accessible in its floor practice as its elevation is to light, to ventilation and to enjoyability.

The massive brick fireplace dominates the living-room

The gallery end of the living-room, looking into the "Loafery"

Here one sees pictured a water-tank, well placed, the lower portion of which is screened by judicious planting

The Isolated Power Plant

By Jonathan A. Rawson, Jr.

AS TO the advantages to be derived from the presence of an individual power plant on the farm or country estate, there can be no argument. If the place is located where it can easily obtain a supply of electricity from the central power station, there are many arguments for securing power in this way rather than by equipping and operating one's own isolated plant. But it is not given to all country residents to enjoy such an opportunity, and even though it were, assuming that the estate is large enough, there would still be the usual contentions in favor of the individual plant such as complete independence, and a saving in expense. In the matter of expense, the place would naturally have to be of sufficient extent in order to consume enough electrical power to make it worth the owner's while to buy and install a plant and provide for its operation.

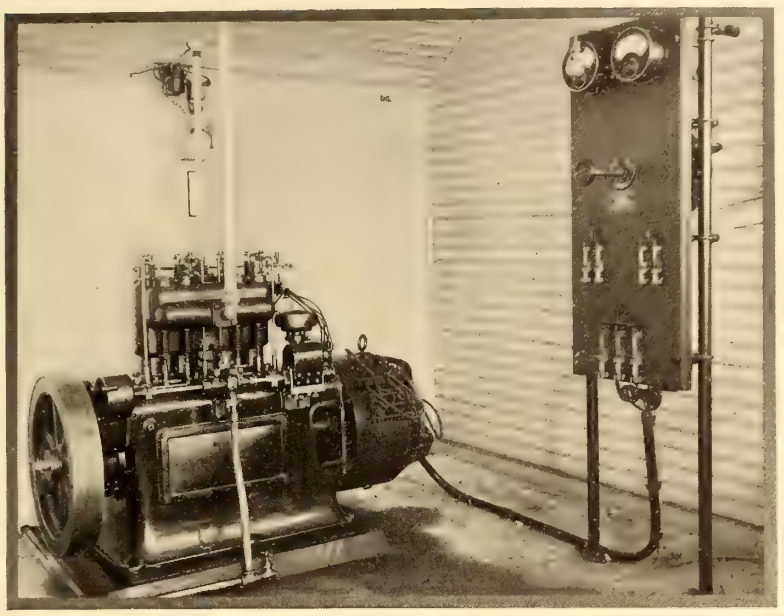
As as matter of fact, there can be no general rule as to the desirability or undesirability of isolated power plants on country estates. There are so many things on which it depends. First of all, there is the size of the estate and the extent to which it is "farmed." Then there is the cost of fuel, the expense of installation and operation, and the general condition of the labor market. If hand labor is cheap, abundant and efficient, as it rarely is, the necessity for the power plant is diminished. If on the other hand, manual labor is hard to get, fickle in its allegiance, unintelligent and high priced, then the demand for the power plant becomes irresistible, unless operations are confined to a small scale and their potential profits thus greatly diminished.

The serious question involved does not bear upon the kind of power to be employed so much as upon the greater puzzle as to whether there shall be a power plant or not; and to determine this point each owner must do his own figuring, studying not only the cost of the plant under consideration and the expense of running it, but also his past expenses for labor, the average annual value of his farm products and the possibility for increasing their value by the employment of mechanical means. Labor-saving machinery is the same on the farm as everywhere else. It is profitable always if the operations warrant it. After it is once in place, it is sure to save money and to add to the peacefulness and pleasures derived from country living.

Few high-grade country residences are built nowadays without their own power plants to provide the illumination and water supply, unless they are served by public service companies. It was in the house that electricity first came into use on the country place, for illumination and for the lighter tasks of housekeeping; but there are so many things to be done about the country place that always used to be done by sheer force of muscle, and that are so much more easily done by electricity, that it was the most natural thing in the world to run the wires out to the barn and the dairy, even though the actual farming operations were not extensive. So in recent years the machinery manufacturers have arisen to the opportunities that confronted them and made it possible for the amateur or professional farmer to get very much more out of his property, and not at a heavily increased expense at that.

The windmill was perhaps the first isolated power plant for use on the farm, and the evolution of the windmill from its first crude forms into its present mechanical perfection is but typical of the general progress that has been achieved through the entire machinery world. The windmill had one serious disadvantage, which was, that it would work only when the wind blew. So plans had to be devised to store up the power while it was working, for use when it is idle.

There are four such schemes. One is to connect the mill to an electric dynamo and store up the power in storage batteries. Another is to run an air compressor by the windmill and then use the compressed air for power. A third method is to make the windmill pump water into a pressure tank which would in turn force it to the outlets, but this device was planned for the purpose of securing a water supply rather than a supply of power. The fourth method of making the windmill's usefulness available at all times is to have it pump water into a tank on a tower and then to allow the water to run from this tower down through a water motor and thence to the outlets, or in case more water is used for power than is wanted otherwise, allow it to run to another tank whence it is again pumped back to the first tank.



A power plant equipment of this type is adapted for employment either on the suburban premises or for the country home

With the windmill, the electric motor and gas engine are now the chief contenders for the honor of supplying the farm with power. Each system has many ardent friends, and the advocates who represent them always reverse the usual court procedure, playing the part of the prosecuting attorney and attempting to have them sentenced to long terms at hard labor, declaring their qualifications for such appointments in terms and figures that apparently defy contradiction until the other party gets the floor and enters his plea.

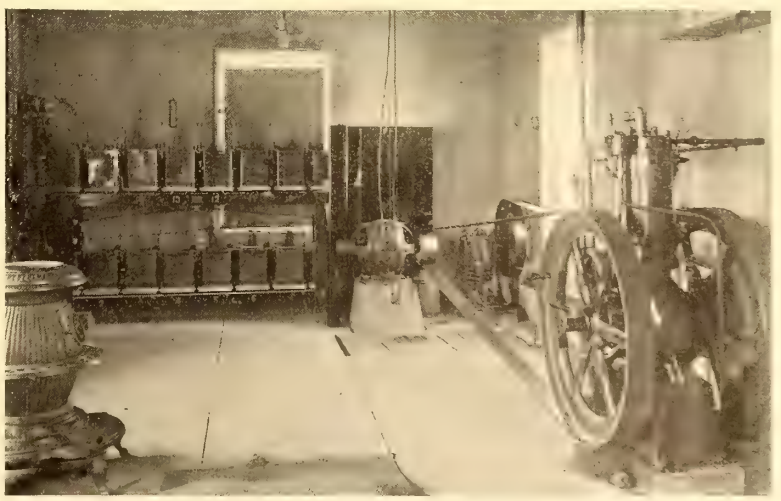
Many men have no fondness for mechanics or anything that has to do with machinery, and to such the matter of picking a power plant to be lived with on one's own property must often appear most mystifying and unattractive. This phase of the situation is, however, quite certain to vanish in thin air, when account is first taken of the great possibilities in the case and of the undoubted benefits to be derived. Neither college nor correspondence courses in physics are essential to provide an entirely adequate understanding of the subject.

Perhaps right here it may be fitting to define briefly the units of power measurement in which the machinery catalogues abound, but which enter into many men's experiences for the first time when they approach the selection of a power plant for their own places. The unit of mechanical power is the horse-power, and the watt is the unit of electrical power. One horse-power is the force required to raise 33,000 pounds one foot in one minute, and a watt is 1-746 part of a horse-power. A kilowatt is 1,000 watts or 1.34 horse-power. The unit of electrical pressure is the volt, which is approximately one-half the pressure exerted by an ordinary dry battery. The flow of the electrical current is measured in amperes, one ampere being the amount of the current that flows when a pressure of one volt is applied to a circuit with a resistance of one ohm, the name given to the unit of resistance to the passage of the current. Voltage, or the pressure that produces the flow of the current, is measured by an instrument called a voltmeter, while the ammeter measures the current in amperes. An ampere-hour is the number of amperes multiplied by the number of hours the current flows, while the lamp-hour is the number of lamps in use multiplied by the number of hours during which they burn.

The improvements of late years in the construction of gas and of oil engines, as well as in electrical machinery generally and storage batteries in particular, have accomplished the perfection of small power plants to a point where efficiency is assured if only the simplest care is employed in the selection and due regard is had for the conditions under which work is to be done. The questions of first cost, and of expense of operation and maintenance have also been worked out greatly to the advantage of even the smallest farms.

Gas engines and oil engines are made in almost any capacity. One leading firm builds them in sizes from one horse-power to 500 horse-power and is prepared to fill special demands for plants up to 2,000 horse-power. In case gasoline is too expensive as the fuel for any reason, other liquid fuels may be substituted, and engines are designed to use a heavier kerosene oil and alcohol. By common consent, the internal combustion engine is the most efficient of all, converting a larger percentage of heat into mechanical energy than any other form of prime mover. While the efficiency of a steam plant is rarely over twelve per cent, that of the gas engines is commonly rated at twenty per cent. Alcohol is said to work as effectively in gasoline engines as gasoline, and one estimate has it that

A garage and power plant can be combined, and such an equipment installed as that shown in the illustration to the right



Such an equipment as this may be installed at a comparatively low cost in a building like that shown on the left

The isolated power plant should be designed to form a pleasing unit in the arrangement of the grouping of outbuildings

four gallons of alcohol are the equivalent of three gallons of gasoline. Since alcohol does not carburet as readily as gasoline, it affords more difficulty in starting. A fair estimate is, that the average consumption of gasoline per horse-power per hour is about one sixth or one seventh gallon, with a minimum of one tenth gallon.

Most of the dealers' catalogues say that the internal combustion engines are regularly fitted for gasoline, naphtha, benzine or distillate, but that when so ordered they can be equipped to operate on alcohol, gas or kerosene. If the purchaser specifies no preference he will in most cases receive a gasoline engine.

As between steam and gasoline for the farm power plant, all the advantages are with the latter, and steam is rarely if ever considered now. The gasoline engine is always ready to start, and at the end of the run it wastes no partly used fuel. It does not store up large supplies of energy which might suddenly be released so as to cause an explosion. If its supply tank is buried underground outside the buildings, as it properly should be, there is no addition to the fire risk from that quarter. Larger engines are naturally required for irrigation than for general farm purposes, but even a three to ten horse-power gas engine can do most effective work in furnishing water for a small field. A five horse-power engine is capable of raising 500 gallons of water per minute from a depth of 20 feet. In filling the silo, 75 tons of corn fodder will be handled in one working day by an engine of 12 to 15 horse-power on a fuel allowance of 10 to 12 gallons. A 30-bushel load of ear corn can be transferred into its car or granary in three to six minutes by the means of a two horse-power engine.

The little portable farm gasoline engines are entitled to high rank among the benefits given to mankind. They have helped out many small farmers who could never have afforded large stationary plants, and for the suburban resident who does not make farming his chief business but who is still eager to develop his place as extensively as possible, these portable outfits have many attractions. With a belt drive, they are ready to work anywhere indoors or out and they are entirely capable of undertaking many of the jobs which if done by hand would require more men and more money for expenses.

The advocates of electricity as the proper form of power for country estates will always introduce their argument with the assertion that windmills, water wheels, steam engines and hot air engines complicate the operation of farming implements, because of the need for shafting, pulleys, belts and other transmission machinery, and that such power can only be used in restricted areas near the point where the power is generated. But they do not proceed far with their argument before they pay homage to the gasoline engine. Their use for it is to drive their dynamos. Water power, windmills, steam engines and turbines may be used to drive the generators, but the gasoline engine is obviously the most generally adaptable and easily obtainable.

The arguments for electricity on the farm are its safety, flexibility in operation, reliability and cleanliness. In the matter of cost, the advantage is more than likely to be with the gasoline engine, but all things considered the electrical outfit appears to be much more mobile and versatile. But if the gasoline engine will do all that is necessary to be done, and where it can be done most conveniently, it is clearly unnecessary to transform its power into electrical energy and let it labor in that form. The question of portability is an open one. There are portable electrical outfits that can travel about on trucks, but they have to be started by the gasoline engine.

In the house electricity is the thing by all means. It will furnish light and do many little odd jobs that gasoline cannot attempt, and it is beyond dispute safer and cleaner.

There are few if any forms of ordinary farm work that the electric motor will not do efficiently. Besides attending to all the simpler duties, like running the cream separator, churn, corn sheller, farming mill, circular saw, feed grinder, grindstone and washing machine, it may apply for employment in the dairy and used readily with the vacuum milking machine as an assistant, and with its help the vacuum cleaning system may be applied direct to the cows themselves. All the loose hair and dirt is drawn into the dust collector and removed. The gasoline engine may, it is true, be assigned to these same tasks, but the electric equipment appears to be more compact and practical, and there is certainly an advantage in being able to keep the gasoline engine out of the barn because of the fire risk, if for no other reason.

In the dairy, electric motors take little power to run the separator and may be mounted on the floor, wall or ceiling near the separator and connected to it by a transmission belt. They can be adapted readily to use with rotary churns and butter workers, or with barrel and factory types of churns driving either through gears or by belt connections.

The total power capacity of the electrical engine plant chosen for the country place should in every instance be greater than the total amount that might be required at any one time. One authority advises that the size selected should depend to some extent on the point whether all the power for labor and lighting is to be taken from the storage batteries while the engine is not running, or whether the heaviest load is to be taken from the engine direct and the battery only used as a reserve for the hours when the engine is idle; or whether the current will be taken from both the generator and battery during the time of the heaviest load.

Inside the farmhouse, there are almost as many things for the electric current to do as out-of-doors or in the barn or dairy. First, it will supply the lights. Then, it will run the washing machine, the sewing machine, the ice cream freezer, the vacuum cleaner, the coffee grinder, the meat grinder, the bread mixer, and so on indefinitely. The electric iron and toaster, the complete cooking and baking outfits, water heaters and heating pads, and even the electric shaving mug and cigar lighter, carry its functions from the practical and useful into that of the merely convenient and luxurious.

These two illustrations here shown exhibit a convenient method of arranging the drainage-boards for the well-ordered kitchen sink

The Sanitary Plumbing of Homes

By Rolfe C. Roberts
Photographs by T. C. Turner and Others

THERE is an old proverb sometimes quoted to maids and matrons that declares "the way to a man's heart is through his stomach." It is a heartless epigram and crude, nevertheless it contains much natural truth, since physical life so often seems to be the foundation on which the moral structure is built and material wants underlying all others will clamor for early satisfaction. So it is with houses; no height of adornment and æsthetic refinement will make livable a home that first lacks the comforts of utility, and it is with the consciousness of this truth before us that we are moved to introduce the very important subject of the sanitary plumbing of the dwelling. No complement of man's housing is so vital to his physical wants as this, as in the bathroom and in the kitchen it provides the instruments and means for many of the primary daily ministrations to his body. Unfortunately a general ignorance of the sanitary feature of the subject has often led to the undue sacrificing of the plumbing equipment to other and less essential expenditures, perhaps, to merely ornamental ones in the building of a house, though now it has come to be realized that this inconspicuous piping is vastly more important than the matter of fancy fixtures, in the selection of which latter common error makes the choice from appearances instead of from their sanitary and mechanical qualities.

An outline of the subject will serve to place before the mind's eye the material features to be considered of plumbing, of which so much is hidden away in floors and walls that one uninitiated in the subject has generally no coherent idea of what it really all is. The accompanying diagram indicates the various fixtures, tubs, basin, sink, etc., all placed about the house where utility demands them. Note that these are put as close together as possible and all connecting with a rather elaborate hidden network of pipe. These pipes may be classified according to their function as (a) supply pipes for furnishing fresh water to the fixtures and (b) drainage or waste pipes for carrying off used water and refuse. A study of these various pipes will reveal the community water-pipe entering the basin through the proverbially tireless meter and then dividing into a cold and hot water supply fixtures. The latter supply is obtained by means of a boiler connected with the furnace or kitchen range or, it may be, by a special heater and this is piped to every fixture except the water-closet, which receives only cold water. Tracing now the branch drains which lead from every fixture they will be observed to enter a large main drain called the soil which, running vertically, extends above the roof for ventilation, and discharges through the house drain and trap in the basement into the public sewer or, if it be in the country, into a cesspool or, better, into a private sewage disposal plant. From these drain-pipes rise the vapors of decomposition known as sewer gas, to exclude which a trap is placed at every fixture, just as the one in the basement is arranged to exclude gas from the main sewer. The trap is one of the most significant features of sanitation.

Bathtub fitted with a curtained shower

The foregoing outline is sufficient to indicate that the ordinance of plumbing consists broadly of fixtures for the use of water, and complimentary pipes to convey and remove water from them. Therefore it is important that both fixtures and pipes be installed with equal care. To neglect one side will negative the merits the other side may possess and will compromise the sanitary efficiency of the whole system

and if, as it should be, sanitary efficiency is the *sine qua non* of plumbing, then only first-class material and experienced and reputable plumbers should be employed. Whether in a large house or in a small one, the employment of cheap material and labor cannot prove an economy but will, sooner or later, lead to ever recurrent bills for constant repairs and readjustment.

FIXTURES

In the design of plumbing fixtures there has been astonishing improvement in recent years. The essential points of perfect ones may be stated as an unabsorbent surface, smooth and easily cleaned, and an absence of joints and square corners where dirt will stick. All these features are embodied in the modern fixtures of glazed pottery and cast iron which are cast in one piece with rounded corners and edges, and with smooth impervious surfaces in white and ivory tints scarcely surpassed in appearance and sanitary perfection. Common observation has not revealed to many people that all white glazed vessels are not made of the same material. Some are made of pottery with a thick shell and are known to the trade as "Porcelain," while others are made of cast iron and are technically termed "Enameled." Rolled rims on iron vessels increase their likeness to pottery which they so closely resemble that people often buy them in the belief that they are getting the other material. Pottery fixtures are generally more expensive, are more distinguished in appearance and for some purposes are best, but economy, added to the virtue of the material, often makes enameled iron a more suitable choice. Fixtures are made of other materials, some of which will be mentioned later.

Beginning a review of fixtures with those of the bathroom we shall find, in the typical instance, that this room contains a tub, a lavatory and a water-closet, but greater luxury may add a shower bath or such implements as a sitz bath, a foot bath or a bidette. A well-appointed bathroom is a great comfort and ministers to the body as truly as does a good library to the mind, even though the average man's bath cannot be large or sumptuous, let the plumbing fixtures of the bathroom be good and sanitarily correct. A bathroom may be a legitimate object for decoration of the highest order, as in the example of the famous one at Rambouillet, France, and as suggested in the fragmentary visions that Singer has reconstructed of Roman and Oriental splendor. A bathroom containing nothing not prescribed by utility will stand a much better chance of conforming not only to the standards of good taste, but even to the laws of art, than one attempting to follow lines of decoration not in keeping with its intention. Therefore, in general, it is a safe rule to eschew all adorned fixtures, tiles and cornices, rather diverting the expenditure at hand to an increase of mechanical perfection.

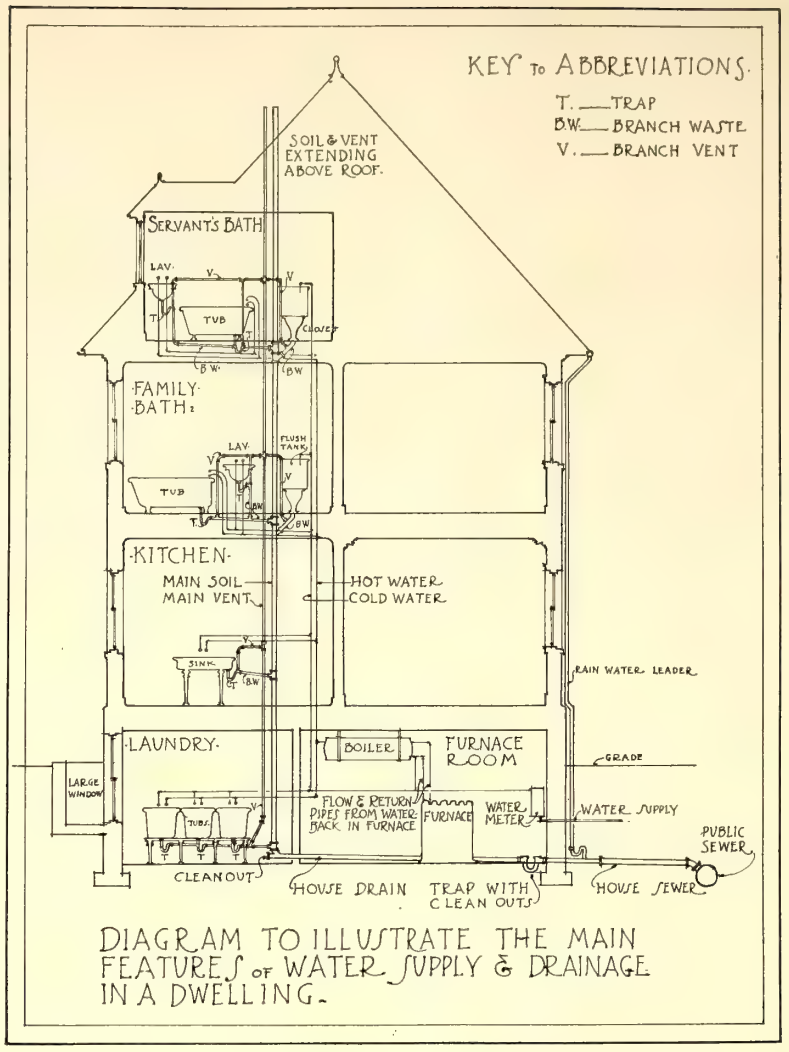


DIAGRAM TO ILLUSTRATE THE MAIN FEATURES OF WATER SUPPLY & DRAINAGE IN A DWELLING.

A word is here in place about the bathroom designed for the servants' use. A service bathroom should be considered a necessity, not a luxury, even in small houses. The opportunity for cleanliness in this direction is too often overlooked by home planners.

Of bathtubs the porcelain ones are most elegant and they are also most expensive. They are often designed to be built into the floors and walls with a tile finishing against them in a most compact and cleanly manner, but are also set free or raised on legs. Porcelain tubs absorb considerable heat and keep down the temperature of the water until they are first warmed—a trifle annoying on a frosty morning. Enameled iron tubs are cheaper and are more prominent in average houses, and they are excellent fixtures. They are also designed to set in the walls and floors, but usually stand free on legs. Their range in length is considerable, according to space, but a convenient dimension is five feet.

Companion of the tub is the lavatory. When of porcelain it is often supported on a porcelain pedestal, or it may be keyed to the wall and have the additional support of one or two legs. When of enameled iron it is more often made with a raised integral back and hung on the walls with perhaps the reinforcement of brackets. Bowls may be circular, rectangular or oval, but there seems to be a predilection for the latter shape. A marble slab to which a porcelain bowl was screwed was once a common form of lavatory, but it has corners and joints to loosen and become dirty and marble stains are often hard to remove, so it is now largely superseded by the one-piece glazed fixture.

The water-closet is the most important fixture from the standpoint of sanitation and should be selected with care. Siphon jet-closets are best; also most expensive. Siphon wash-down fixtures are commended and are most preferable to the variety known as "wash-out closets," which lack the virtues of the superior traps and siphonic flushing action which the former two possess.

Porcelain wash basin

There are numerous good makes of siphon jet-closets which vary in detail. Some are arranged to make less noise than others and some make a point of economy of water used in flushing or of details of cleanliness. For a perfect understanding of these it is necessary to study the sectional drawings and descriptions of manufacturers. A certain fixture, for instance, has been invented with a bowl and seat lower than the ordinary closet and with the seat slightly inclined up from the hinge to be a little higher in front. Closet seats are of wood, gener-

ally in natural finish, but there is a patented process of white coating them. The low set flushing-tank is a comparatively recent innovation that is especially useful where headroom is low, as under stairs and roofs, and it is easier to clean and repair, but there is no objection to the old form of high tank where it is economy.

The small square tub

To many people, especially to men, a shower is more useful than a tub and with the advancement of hygiene the modern American is becoming such an amphibious creature that it is not uncommon to find one in even a very modest house. For quick daily baths it surpasses a tub because of the ease and rapidity with which the immersion may be changed in temperature. For economy showers are sometimes placed over the bathtubs with a ring from which is suspended a curtain of cotton duck or silk-lined rubber. A more generous scheme is a framework of polished tube placed on a receptor about three or three and one half feet square. This form may have a needle bath spray of lateral streams and is also surrounded by a curtain. Porcelain enclosures are also made to be set into the construction like a niche. It is a common fault to have showers too small. If the shower is introduced at all it should have a large square stall with water-proof walls and be ample in proportion.

Before descending to the kitchen we will briefly mention the housemaid's sink and the waste sink. The former is intended only for getting water for cleaning and drinking and is placed near the bedrooms. The functions of a waste sink can generally be performed by a water-closet, but it is sometimes an advisable adjunct of a large house. Porcelain is the best material for this fixture and the best ones have a flushing rim and are provided with a flush-tank like a water-closet. They are generally put in little alcoves or closets where perhaps brooms and mops are also kept, but must have light and air and always kept scrupulously clean.

It is rumored that after paganism was overthrown the Roman household altar transmigrated to the modern porcelain kitchen sink. There might be a certain sadness about this were it not that it inspires, perchance, the opportunity of more sanctity in the care of this household utility than it was wont to receive. What with banging of pots and kettles and greasy aspersions the poor old sink of some years ago had a hard lot in life. But of all its competitors the porcelain pottery sink with a raised back is most worthy to appease the lares and penates of modern life. Enameled iron is apt to yield sooner to hard usage and when the enamel begins to scale the sanitary value of a fixture is destroyed. Cheaper sinks are made of galvanized, painted or plain iron, but are inferior. Soapstone absorbs grease and becomes black. Of necessity, depending upon either the kitchen space or the extent of its use, sinks vary in size. In connection with sinks, plumbing houses provide ash drain-boards nicely fitted with brass connections and hinged to fold against the wall, but in small houses the drain-boards will generally be made by the carpenter.

Serving-pantries contain sinks for washing the table service. These are generally made of tin and planished copper, of which the yielding surface reduces the hazards to china. They have oval or flat bottoms; the latter are better, and expensive sinks have two compartments, one for flushing and one for rinsing. They are sometimes set in marble slabs, but wood is safer and marble or tile may be used in the splash-backs. Very fine sinks are made of German silver or white metal with even the drain-boards and splash-backs of the same material.

Many housewives remember the day when the round, wooden tub played the principle wash-day role in even comfortable homes. It was a picturesque receptacle. Simple Simon might well figure over it in his fruitless quest, and to-day it is generally associated with scenes of rusticity or frugality. Modern plumbed tubs are made of porcelain-lined pottery and iron or of cement, soapstone and slate. The last three pipes are very serviceable but much inferior to the glazed white ones, for they have joints or are absorbent and become odorous and are dark in color. The rolled-rim pottery sinks are best; they are set on a metal framework supported by bronzed iron or porcelain legs. No plain iron should be in the laundry, for it exposes the clothes to rust stains. Wooden rims are sometimes set on sinks, but it is better to avoid them and have adjustable wringer-boards. In small houses it is common to install two sinks, but three generally serve better and sometimes four are employed. It is not good practice to cover sinks and use them for tables; they should be left open to the air. Washing operations in a kitchen may conflict with cooking processes, creating confusion and unpleasant odors and clouds of steam; hence it is better to have an ample light in some part of the basement where the tubs can be placed. In a large house there may be a special laundry on the main floor.

A well arranged shower

Connected with the fittings of fixtures there is much detail of which the writer can here only suggest. These fittings and fixtures are ordinarily of brass, but in finest work may be phosphor bronze, steam metal or gun metal. Brass is usually plated with nickel or silver, but unless it is well done will soon wear off. Silver metal or white metal is a new alloy that can be handsomely polished and cannot lose its finish. Faucets, though varying much in detail, are in mechanical principle divided into ground-key and compression types, of which the latter is longer lived, is

Some houses are fortunate in the amount of space they can give to the well-appointed bathroom

easier to repair and will not shock the plumbing by too rapidly stopping the stream—a condition known as water hammer. The combination faucets that deliver both cold and hot water from one spout are most convenient and the nozzle of the bathtub faucet may be ribbed to hold a rubber spray-tube. A fixture depends much for its sanitary quality on the character of its waste and overflow, of which the commonest arrangement consists of a rubber or brass stopper on a chain for a waste plug and a conduit running from the top of the fixture and behind it down to the regular waste pipe, for the overflow, objects to these arrangements as being unclean. The chain with its folded links presents an admirable harbor for dirt. Its total surface is rather large, in the average basin about fourteen square inches, it is difficult to clean and is nearly always in a filthy condition. Besides, it is in the way and if it breaks one must sometimes plunge the hands in murky water. Again, the concealed overflow pipe being seldom flushed and difficult to clean accumulates spatterings of soap and dirt which establish an unsanitary condition attended with unpleasant odors. To correct these conditions he recommends the use of the standpipe overflow and combined waste plug as the best device with which he is acquainted. Briefly, this consists of a polished tube whose bottom rim forms the stop-plug and by extending to the top of the fixture and being copped with a grating it forms an overflow, thus doing away with the aperture at the top of the fixture and the objectionable pipe. The standpipe is straight and being removable is easily cleaned by the housekeeper. In order that it shall not be an obstruction, fixtures designed for its use have a little niche to receive it and large enough to clean behind it. There are numerous ingenious devices for waste-valves operated by cocks on top of the fixture near the faucets, but generally their concealed parts are open to spatterings from the waste and are inaccessible for cleaning. Some have the stopper so far down in the waste pipe that suds and dirt arise from it when clean water is turned into the fixture.

The construction adjacent to fixtures plays, of course, an important part in sanitation. Ideal conditions are approached by smooth, polished, light-colored surfaces that are unabsorbent and easily washed by rounded corners and edges and by tight joints. The best floors are made of white vitrified, unglazed tiles and the wainscots of glazed white tiles. Other floor materials are marble terrazzo and cement, all of which require a concrete base.

Interlocked rubber tiling sometimes makes a good floor and a good, cheaper floor is made of narrow strips of close-grained hardwood carefully laid and soaked with hot linseed oil. Flagstones may be used in a large laundry. Besides tile already mentioned, wainscots may be of glazed brick and cheaper ones of polished cement or rock-finish plaster, the latter sometimes painted, and enamel paint may be applied to the walls and ceilings above wainscots, especially in a laundry where steam arises. Bathroom walls are sometimes covered with sanitary, washable wall-papers. It is not uncommon, especially in kitchens, to put hard materials immediately next to the fixtures and leave the rest of a room in cheaper construction. In bathrooms having wooden floors the water-closet is sometimes set on a slate or marble slab.

A cove at the junction of the walls and ceiling is good and tile corners, bases and wainscot caps are rounded. All wood trim should be free from moulding and have rounded edges. Boxing up fixtures is obsolete. They should be left open to air and light. It is not good practice to put storage closets under a sink.

The hot water supply is a special problem. The common method has been to heat the water by means of a water-back in the kitchen range and store it in a tank erroneously called a boiler. Where gas has supplemented the kitchen range the boiler is connected to the furnace and in large houses where there is a steady demand for hot water in Summer it sometimes has a special coal heater, or if the demand is not steady a gas heater is more economical. For tanks containing not more than eighty gallons a round water heater will suffice, but larger tanks will warrant an independent automatic gas heater. By opening any faucet a pilot light will set it in operation and hot water flows almost immediately. Little instantaneous gas heaters can sometimes be used to advantage in bathrooms. They are not connected with the hot water pipes and serve only local purposes. Storage tanks or boilers are made of copper or of wrought iron, which is stronger and will stand more pressure. It would be wise to learn from your plumber the conditions that sometimes lead to the explosion or collapse of boilers.

The piping is from a sanitary point of view, the most important phase of all house plumbing. A pure water supply is one of the chiefest concerns of sanitation, but as it has little to do with the observation that where water is silty or full of matter a good filter can be installed in the basement and periodically the pipes can be cleaned by pumping through them a solution of lye and warm water. Concerning drainage, however, much more must be said. We have already mentioned the sewer gas which arises in the drain pipes. It is the product of decomposing sediments which gradually coat the insides of pipes used for conveying waste matters. Scientists are coming to the opinion that sewer gas does not convey zymotic diseases such as typhoid, but as impure air has a weakening effect on the health of those who breath it and lessens the power of resistance to disease, it becomes the object of sanitary plumbing to exclude gases

A closet shower opening out of the bathroom

from the house and keep the drains as free as possible from the deposits that generate them. The all important trap achieves the first object and proper flushing and intelligent laying of the pipes the second.

A trap is a device placed close to every fixture and the barrier by which it prevents the passage of air between the drain and the house is created by water held in a chamber so arranged that it will remain full even after the discharge of the fixtures through it. Traps are beset by certain dangers which tend to destroy this seal. An abnormal pressure in the soil or waste pipe may force it by back pressure. Sudden rapid discharges through the soil create a suction behind them that may draw out the contents of a trap—an effect known as siphonage. Evaporation and capillary action also act on the seal. To equalize the air pressure on both sides of the trap and thus eliminate the conditions that lead to siphonage and back pressure, air is introduced to the trap at its discharging end by a back vent pipe leading to outdoors. New dangers arise for this complication, if not handled by skilled plumbers, sometimes exposes a by-pass, a misarrangement of pipes that permits a direct entrance of gas into the room. Back vents accelerate evaporation and sometimes become clogged by ejections from the trap so as to become entirely useless; they also increase the cost of the work about ten per cent. These conditions have brought about the invention of non-siphonable traps, which are designed to be used without back venting. Many eminent experts advocate this simple method, but city laws do not yet recognize an absolutely safe non-siphoning trap and back vents are generally prescribed. Traps are designed to be self-cleaning, but they should be exposed to view where possible and accessible for special cleaning.

Vigorous flushing is the watchword of good plumbing. It means ample precipitate discharges that will fill and scour the pipes and carry everything before them. Slow, dribbly discharges, only partially filling the pipes, leave the filth to be smeared and deposited in the waste channels. A common error is to have waste outlets too small and drain pipes too large in proportion, as even if there is plenty of water it is not admitted fast enough to the pipe. The waste outlet should be equal in area to the section of the pipe. Fixtures with flushing tanks, like water-closets, generally have ample discharges; so have bathtubs if their wastes are large enough, but kitchen sinks suffer from defective flushing. They receive many small dribblings often of thick, dirty fluids containing grease, which is a special enemy of the pipes and traps, for it adheres and produces an odious putrefaction. To remedy this defect sinks are sometimes arranged with reservoirs or flush-pots that will contain about six gallons and when they have become full the plug is lifted and the contents are ejected with vigor. All fixtures should be as close as possible to the soil so as to avoid long horizontal runs of pipes, which retards speed, and good workmanship must guard against sags in horizontal pipes and assure careful joints with no projections to form recurring obstructions.

A tiled bathroom

Concentration of fixtures should be practiced for both economy and sanitation. They should be grouped so as to avoid the multiplication of soil pipes. In a small house especially this is important, and by placing the bath over the kitchen and the laundry under the kitchen but one soil is needed. The less plumbing essential in a house the better; avoid fixtures not absolutely needed and keep none in sleeping-rooms. Use no floor drains where a mop can serve.

The maintenance of plumbing requires intelligent care and its status is often a fair index to the thrift and enlightenment of the family. If it is not understood or is neglected there will result an undue deterioration of the property, avoidable repair bills and the establishment of unsanitary conditions. With regard to the cleaning of fixtures many housekeepers do not know that glazed surfaces are injured by many of the acid or gritty cleaning compounds, powders and scouring soaps, as for instance Sapolio, which makes very fine scratches that in time become dark with the filigree they gather. Muriatic acid attacks porcelain and enamel, so it is dangerous to employ dilutions of that chemical. A very fine powder, manufactured, is said to be a safe cleanser for porcelain and tile work and has also been well spoken of as a material for cleaning tile walls. Naphtha washing soap and hot water is also advised for fixtures and stains may yield to oxalic acid. Kerosene oil is sometimes helpful for cleaning glazed surfaces, and with warm water may help to cut the grease of the kitchen sink. The copper pantry sink may be treated with rottenstone and oil or with oxalic acid. The water-closet should be frequently scrubbed with a scrubbing brush and hot water and soap. The seats should be washed and, unless of the white celluloid type, should be periodically oiled or rubbed with furniture polish. Varnish and shellac should not be used, for they are cut by soap. The flush cisterns of the water--closet should be occasionally cleaned, for deposits of silt or grit may cause leaky valves. Branch waste pipes should be periodically treated to a solution of hot water and lye or caustic potash. Washing soda, though not so strong, may be used. The solution may be poured in at night and washed out in the morning. Once in awhile use a disinfecting solution. A plumber should be occasionally employed to disinfect the soil pipe by means of formaldehyde, gas, or other disinfectant applied with a smoke-testing machine, and the pipes can then be examined for tightness. Also traps, nickel, brass and copper fittings tarnish rapidly in damp climates and require careful rubbing with a woolen cloth and may be polished with dry flour or whiting mixed into a paste with soap foam. Too much rubbing is apt to wear away plating, especially if polishing powders are used. Nickel may be cleaned with whiting powder and alcohol or with silicon and vinegar, finishing with a chamois skin. Copper may be treated with diluted oxalic acid and common salt, using after the acid whiting to prevent tarnishing and wiping the metal

A sanitary bedroom lavatory

(*Continued on page 264*)

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

THE LIVING-ROOM

By Harry Martin Yeomans

IF recent years the living-room has been growing in favor, and it is a good omen of the sensible trend and interest which has been taken in home building and things artistic during the past ten or fifteen years, that this serviceable room has been fostered by architects until it has grown to be the principal one in almost every house, and very few floor plans now appear without it. Pretentious houses have the regulation drawing-room and reception-room, but they include a large living-room as well. It is in the smaller houses, however, that the social and economic side of the living-room is most manifest, and the space which was once devoted to a formal parlor, an upholstered den and a stuffy sitting-room, has now been incorporated in a large living room, which fulfills all the functions of the three former, and corresponds, in a general way, to the social hall of the olden times in England. This room also lends itself more readily to decorative treatment on account of its larger proportions and more ample wallspaces, and there is rejoicing at house-cleaning time, when only one room has to be cleaned instead of several small ones. In small houses which have the conventional rooms on the ground floor, the members of the family seem to gravitate naturally towards one social center and neglect the other rooms, which are only waste space as far as their being used to any extent is concerned.

When a living-room is to be furnished, one is apt to be influenced by the idea that, in order to give it an informal appearance and keep it from becoming monotonous, a nondescript collection of furniture of various styles must be brought together and the walls lined with pictures regardless of their merit. This room can be treated in a more or less formal way, and at the same time be perfectly fitted to its uses and embody all of the home atmosphere, which is indispensable in a living-room.

If the living-room is to be decorated in a period style, the models and motifs which went to make up the principal characteristics of that style must be adhered to and followed. But one can also take the furnishings of almost any of the great periods of decorative art, and by creating a suitable background for it, you will be able to adapt this furniture to the needs of a room in a small house.

Some people possess the faculty of assembling artistic furniture, pictures and objects of different styles and periods, and seem to have an inborn feeling for just the right things which will combine in a harmonious whole. Persons endowed with this natural power of selection feel instinctively that certain objects will combine well when placed in juxtaposition.

This idea has been visualized in the charming living-room and sitting-room shown in the accompanying illustrations, one of them having been treated in an informal and the other in a formal manner. Both rooms are full of good ideas and suggestions for the living-room of the Summer house, from a decorative and architectural point of view, and have an atmosphere of calm repose.

The woodwork in the informal living-room is structurally good and culminates in the architectural treatment of the mantelpiece; the pilasters flanking the fireplace and framing the wooden panel above, having the effect of supporting the ceiling. This is good constructive decoration. The wooden panel over the mantelshelf, showing the grain of the wood, decorates this space effectively. The wood trim was not partly covered by draperies and pictures but was allowed its full value in the decorative scheme. The small panes of glass in the windows are more decorative than if the large sheets of glass had been used.

A two-toned gray paper, having a small repeat, covered the walls and made a quiet and unobtrusive background for the varied collection of furniture which was to be placed in this room. Some willow pieces, a mahogany Empire sofa, an old tapestry and a Chinese teakwood stand, are only a few of the things which were placed side by side, but one has only to refer to the illustrations to see the happy result that was obtained for features that reflect simplicity of style.

A living-room for Summer occupation

There was no overcrowding, the furniture being arranged around the sides of the room, leaving the center free, which gave the desired sense of spaciousness to this Summer living-room.

Everything in the room was both useful and beautiful. Ornaments that do not ornament were entirely lacking. The two pictures are large enough to be seen from the center of the room and are hung on a line with the eye.

The placing of the objects in the corner of the room by

This is an excellent example of a living-room that is free from the usual overcrowding of the floor space

the triple window is especially happy. The willow chair, the nest of mahogany tables, the brass jardiniere with its green plant, placed against the golden background formed by the Japanese screen, is a charming picture and would gladden the eye of a still-life painter.

In the beautiful reception room a more formal arrangement has been adhered to in the disposition of its furnishings, and a small collection of Japanese and Chinese porcelains, kakemonos, bronzes, screens and a console table, has been combined with some Louis XV. chairs and painted furniture in such a subtle manner that the room does not present the appearance of a museum.

The walls were covered with a natural colored Japanese grasscloth and made a fitting background for the Oriental objects which were to be placed directly against it. The interest at one end of the room centered around a two-fold Chinese screen framed and hung as a picture over a Renaissance chest. This room is a pleasing example of the satisfactory results that can be obtained with Chinese and Japanese decorative objects, especially at this time, when such a tremendous interest is being taken in things Chinese.

In a newly completed house there was to be a Colonial living-room. It was to be kept as simple and elegant as possible, as all Colonial schemes should be. Instead of using wall-papers, as had been the case in all of the other rooms in this house, it was decided to paint the walls an old-ivory and stipple them so as to impart a dull, flat finish and remove all traces of the brush marks. The woodwork was painted the same color. At the windows were white lawn curtains, having tiny ruffles, sill length, and looped back. A two-toned brown rug covered the hardwood floor.

This was a new house and all of the furniture was going to be new—replicas in mahogany of good models designed

(*Continued on page 264*)

A living-room of this sort presents an ideal aspect for Summer occupation, delightfully cool, and attractive in its simple elegance

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

MID-SUMMER IN THE GARDEN

Photographs by T. C. Turner and Others

JUNE and her Roses, yesterday's glory, may have passed, but Mother Nature has not been forgetful of July's place in her affection, and there are lovely things in the garden that belong to this month of mid-Summer. Sweet Peas, Marigolds and hundreds of other annuals will be bursting forth in prolific blossom and the garden-beginner should remember that they must be kept carefully picked, for if the garden flowers are allowed to bloom without cutting they will soon go to seed and by the middle of August such a garden will become a sorry sight. The late-blooming flowers, such as Dahlias, Cosmos, and Chrysanthemums, should be encouraged to take on a bushy form by the process of "pinching," as thus they will attain the ever to be desired compact growth.

ROSES—the hybrid perpetuals—will need cutting back five or six inches after their June blooming period is over. If they are carefully and patiently attended to, without lapse of vigilance one may hope to coax forth a second crop of blossoms before frost.

One should try to keep garden paths as neat in appearance as this one

AMONG those flowers which reach their height of beauty in July, the garden-beginner should expect to see Achillea, Campanula, Candytuft, Coreopsis, Digitalis, Evening Primrose, Japanese Iris, Silium Auratum, Phlox, Vinca and Yucca. The garden-maker should not allow the soil of his garden beds to become hard and flat and baked. Flowers, as well as vegetables, need to have the soil from which they spring constantly cultivated and stirred up. The provident gardener will look around for those plants which produce the loveliest flowers and lose no time in marking them so he may be enabled to secure their seed later when the pods ripen and thus assure himself of planting stock for the next season of his own growing. Of course, one probably will not raise all his own seeds, but there is great pleasure and satisfaction in being able to say "This lovely flower has sprung from the seed of another which I myself planted in my garden."

AS for the vegetable garden, July will find one busy there. The garden-maker will be sowing seed of turnips, bush beans, beets (early varieties), during the early part of the month and later he will be sowing spinach seed. If there is a bit of idle ground which the harvesting of an early crop has left vacant, peppers, tomatoes, cabbage, and celery can be transplanted and set out there. The wise vegetable gardener never lets a square foot of earth lie unproductive. He harvests his early crops speedily and puts the idle ground to some good use. Readers of AMERICAN HOMES AND GARDENS, who may have missed the article on "Summer Work in the Vegetable Garden," by Mr. F. F. Rockwell, in the June, 1912, issue of the magazine (page 200), should turn to it without delay, as its suggestions will prove of great value to everyone interested in home garden topics. Finally a word about watering: When watering your garden remember that one good, thorough wetting down of the soil will be worth more than half a dozen sprinklings. Surface wetting may be better than nothing at all, but plants are watered not to remove the dust from their foliage, but to afford the thirsty, hard-working roots ample moisture for sustenance.

SLUGS IN THE GARDEN

AN amateur gardener has written the editor of this department to ask for suggestions as to the best way to rid a garden of slugs, having been bothered by the havoc these plant pests wrought last season. Now, slugs are fond of moist places and thrive on moisture, except that which lime-water supplies. A good plan, then, is to put a lump of lime twice the size of one's two fists in a pail of water, leaving it there four hours. Next strain off the liquid, and as slugs are nocturnal in habit, water the plants they trouble several evenings in succession. Slugs may also be trapped

by placing various tender leaves near the stems of plants in the gardens infested, and as these will often attract them from their hiding places, a late night time gathering of this "bait" will, perhaps, produce a supply of slugs for riddance.

WEEDS IN GRAVEL PATHS

A READER asks what can be done to prevent weeds from growing in gravel paths. There are various preparations for ridding gravel paths of weeds, but a strong solution of salt and water used as a hot brine should prove efficacious.

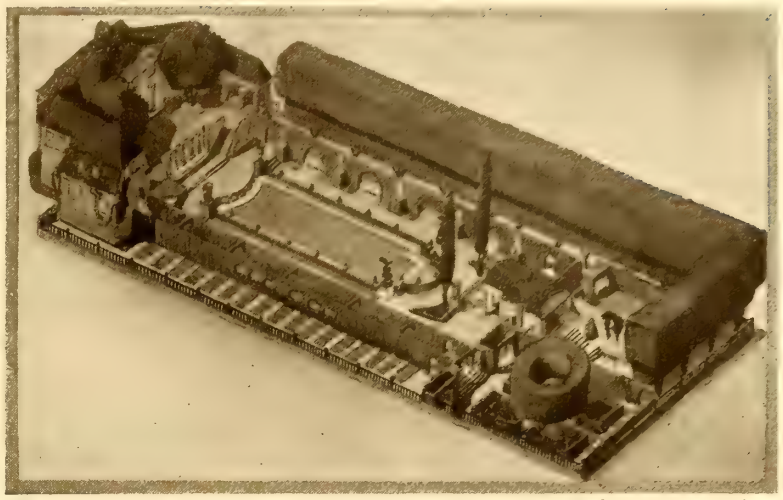
PAINTED FURNITURE

(*Continued from page 238*)

staff and an equally comical little woman presenting him with a nosegay occupy one end and a floral design the other. On the back a representation of the Sacred Heart is flanked on either side by bunches of flowers. The top of the lid is divided into panels and decorated with dainty sprays. On the base is the date 1705 and above it the letters J. V. C. A., presumably the initials of the contracting pair. The Bavarian boxes, of thin wood like our butter boxes, used for holding rice, salt and such things in Bavarian kitchens, are originals. One is dull green, another blue, a third lavender and the fourth yellow; the decorations of flowers are done in distemper. Before the small hanging cabinet assumed its present Bavarian guise it was nothing but an ugly little bathroom contrivance for holding medicine bottles. Its black ground, red decorative bands and basket of flowers certainly improve its appearance vastly. It would not be proper to class as furniture the gorgeously painted and gilt figures of the Madonna and Child, but they are so invariably found in the houses of the devout Bavarian peasants and add a note of such glowing color that they deserve mention.

While speaking of the Bavarian work a word of recognition is due Biedermeyer for his labors in the field of furniture painting. He wrought in the early part of the Nineteenth Century and his work, which is characterized by wreaths, festoons, urns, baskets and circlets of roses enclosing silhouettes, gave a strong impetus to his craft. About this same time the so-called "English Empire" style was popular in England and America and we have many painted pieces of it left, some good, some bad. The groundwork of the chair shown in the picture is a dull yellowish green, the stripe and acanthus ornaments are gilt and a touch of black is judiciously added in places. In other examples fruits and flowers in their natural colors are often elaborately executed.

Last of all we come to a kind of furniture that seems never to have been dignified by any specific name—just ordinary farmhouse wooden kitchen chairs and settees. If



The German homemakers plan their gardens with infinite care, often making little models one year of the gardens they hope to have the next

one might be pardoned so undemocratic a term it could be called American "peasant" furniture. We find it on every hand and in all conditions, but most of it made with a grace of line deserving of careful preservation. Of course, it must be treated according to its rank in the furniture world, but there are many places where its use is highly desirable—places that individual preferences will suggest. All these chairs and settees were painted and decorated, sometimes merely with black lines, sometimes with elaborate and gaily colored fruits, flowers and leaves. On some the rude designs are still fresh, from others generations of scrubbing housewives have obliterated all trace of ornament. The chairs remain, however, and are just as fit for decoration as the day they were made. The splat-back chair of the illustration was picked up in deplorable state in a New Hampshire blacksmith shop. A visit to the carpenter and the removal of old stain left it in shape for redecoration. After recaning and several coats of green, the design, somewhat Russian in character, was applied. Conventional honeysuckles and rosettes fill the splat and on the top piece an urn of vari-colored flowers is guarded on either side by a fat little dwarf with a broad white collar and a big white neckcloth. Three other chairs of fine lines came also from this New Hampshire village. They are fully a hundred and fifty years old and coat after coat of yellow paint had obscured the original decoration of fruit and oak leaves, all in black, until revealed by the scraping process. In redecorating one can advantageously use for groundwork greens, grays, certain shades of yellow, dark blues, brilliant reds and white. What has been said of painted furniture is enough to show how full of possibilities is that branch of industrial art. A broader realization of available resources will go far toward increasing the taste for colored decoration.

There is no feature of the country house more delightful than a broad terrace-porch from which one may look out over the home landscape

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

ALLOWANCE VERSUS CREDIT SYSTEM

By Elizabeth Atwood

IT is true "that the mind cannot give what it has not taken in" in some form or another. The child cannot learn the value of money if she never handles it, nor can she ever learn the first principles of economical spending if she neither has the money to spend nor the advice upon spending. Neither can a woman learn how to buy economically, nor how to save if she always has her bills paid for her and never has any money to handle, so that she may learn how to save. In short, a woman without an allowance, be she rich or poor, is a very helpless, careless and, many, many times, a most unhappy one.

A child's idea of money is what is seen in return for certain expenditure. Not until he is four or five miles from home with his pockets empty of cash does he fully realize the value of a nickel. Nor are children alone, in this actual sense of money value. One should establish an allowance plan and adhere to it. I have started several times to do this, and the children (wise things) were very glad when their wants were again supplied from the family fund. "Why, we get along so much easier and have more money to spend," they said, which was all too true.

Many parents have had this same trying experience. It is so hard to say "no" to your honest, pleading, brown-eyed boy, in whose hands your pocketbook is as safe as it is in your own. There are so many lessons to be taught to a boy or a girl who is to dress and pay for his or her pleasure out of an allowance. Do you not know how hard it is to keep within a prescribed limit? Well, I do if you do not, you, mother, who has not suffered in this kind of training of self and of children.

It is only through trying again, that we get training and experience. Every child ought to know through handling of his pennies, that ten cents make one dime and ten dimes make one dollar. After that the dollar will be cared for as worthy of consideration. A penny is so small an amount, and does not count "just this once." Our children are all very willing to help spend the money which comes into the family; in fact, they seem to regard it as a right of theirs, which we ought to consider a privilege. It is a rare occurrence when children are interested in the saving of the family income, even though it is to be for their ultimate gain.

We only are to blame. Where did we make the mistake? How could we have done better? Just by taking time and giving more thought to the training of the children and their spending of money, whether penny or dollar. If a child has an amount which is his very own, out of which some portion of his pleasure or comfort must be paid, he is bound to value one cent out of his ten more than one cent out of your pocketbook. In a stipulated sum, the child's right should be absolute, as are the consequences. Out of such an allowance all gifts should be made, teaching the reward of self-sacrifice in the pleasure of giving.

Only a girl who has no fund of her own, knows the anguish of being without money, especially if all her companions have allowances. Her nature must be very easy and cheerful if she can stand this test. There is as much danger of a girl becoming a sponge as there is of a boy. If she has no money of her own her friends cannot bear to have her left out of possible treats or entertainments and they invite her to join them. This is the entering wedge of many unpleasant qualities. Her sense of obligation grows less and less and the one of right, becomes distorted.

Every girl should beg of her parents to give an allowance system a trial, even though they may not believe in it. Many parents would do this gladly, would have done it sooner, only they did not think of it. The girl with an allowance should be very honest with herself, always keeping within the limit. If mother gives the allowance she should not work upon the feelings of Daddy if she does come short, for this will weaken will-power and encourage dishonesty. Moral fiber is in training and this will help its growth. Self-reliance is surely helped at the same time. An allowance wisely directed in its uses develops the girl wonderfully, though it may only be twenty-five cents a week.

Whether a girl marries or not, this early training in wisely using an allowance is one of the best studies she can take up. As a rule there are few girls given even a smattering of a business training, and then later on men ridicule them for this lack. Where were the fathers when these girls were young? Probably they were paying bills and bemoaning the extravagance of women in general, their own in particular. I am not at all sure that these men desire to have their wives grow business-like. Fathers and husbands alike unite in keeping their women helpless in money matters. They do not want their women to develop the business side of their characters.

One writer puts it, that "Masculine kindness to women is so tangled up with selfishness that there need be no surprise that there is some confusion regarding them." They want to give everything, be responsible for everything the wife buys, for they are really very generous at heart, but they like to feel the dependence of their women, just as a mother loves to feel the clinging fingers of her baby learning to walk.

But how about the effect upon the wife? How about these women who are compelled to resort to tricks in order to have money, real money in their hands. It is all very well to run bills, but it is very pleasurable to pay for things. In fact, a woman with an allowance of twenty-five dollars a

week has more self-respect than a woman who is privileged to run a bill of a hundred or more a week. Right there is the first mark of benefit.

Pampered women are not prepared to help when reverses come, however much they wish to do so. They have become intemperate in their desires, in their dress, just as much as man ever became intemperate in drink. This "vice of intemperance" strikes every family sooner or later, and generally in proportion to one's income it goes beyond a rightful limit. Then, for lack of knowledge, the woman is considered unbusinesslike, and so she is. How could she be otherwise? Having no idea of the value of money women are really wasteful, and all for lack of training and for which they are blamed.

I believe that every woman, whatever her station in life, should have a fixed sum weekly or monthly, in just proportion to her husband's income, the expenses of housekeeping and her clothing. Having agreed upon the amount she should have absolute control of it, to learn from the wise or unwise expenditures how to get the most for her money.

You will find most men reasonable, and if you approach them judiciously they will see the wisdom of a separate allowance. There are so many excellent arguments in favor of an allowance. The sense of being a partner in the firm is one, the independence acquired is another, the development of responsibility, the real value of commodities, all these are worth the training to be found in handling an allowance.

How much does a woman know of the increase in expenditures certain articles hold which are out of season, if, yielding to the tempting appearance she simply orders and her husband pays the bill? How is she to know whether she is exceeding the just proportion of money from the whole income which should be used for the table, if she is never put to it to judge and discriminate? In fact, how can she learn what it is to be extravagant, and what it is to be frugal, if she never handles the money belonging to the running of the house ?

She should neither be blamed nor criticized for being unbusinesslike. Just give her an allowance to be rigidly adhered to, and after a few months she will have learned some things she had never dreamed of. She will learn proportions, if, after buying without counting cost, luxuries out of season, for the first two weeks, she finds that she must live on hash and turnips the last two weeks, or else go in debt.

She will learn the value of apportionment and she will find that such knowledge will give her power over her expenditures. One man has put it: "Considering the home as a business venture, what system has been devised in the conduct of this wholly one-sided venture? What is the apportionment for food, for clothing, for pleasure, for rent, for those fixed charges which every housekeeper must meet?" This is the business end of it—after having secured the coveted allowance.

There is a real excitement, a great pleasure in outwitting your butcher and your grocer; by living just as well as ever, setting on the table food just as nourishing as before, while saving from one third to one half on former expenses. And this is sure to be the result on the allowance system, if the woman is at all smart. I presuppose her to be smart or she would drift along the old way.

A woman with an allowance knows just where she stands. If she wants a fifty-dollar gown ever so much, and there is only twenty dollars of the clothing apportionment left, she will quietly wait until she has the money in hand. Under the credit system she had no way of knowing that she should not buy the coveted gown, and then she was called extravagant.

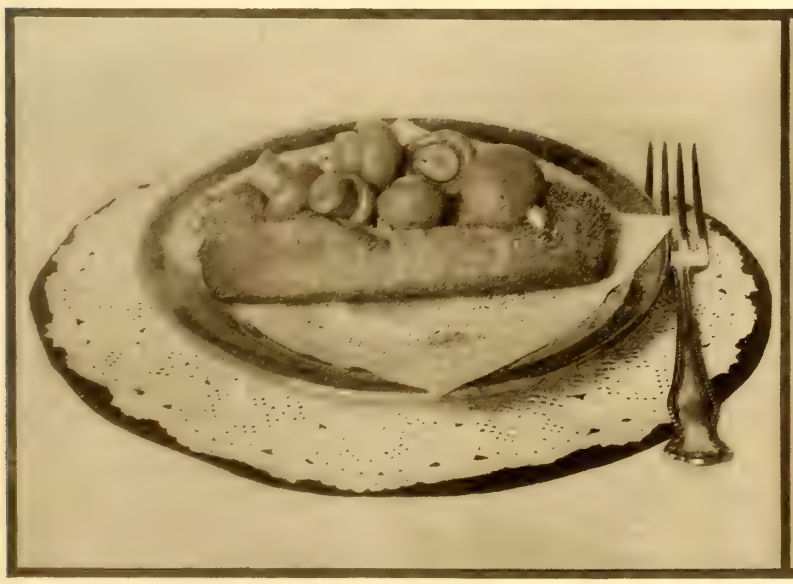
The little leaks which exist in almost every household and which work so much damage, will certainly be brought to light under the allowance system. Expenditures curtailed without diminishing the household comfort ever so little become a most interesting study. No housekeeper, looking back over her itemized expenditures for a month back, will fail to discover here and there a purchase that has proved itself to be not worth while.

But above all, there is so much pleasure in being independent of bills. To be able to trade where one chooses is a comfort. I have found better service in the stores under cash service, for I was quite likely to go elsewhere if not treated to the best there was to be had. There is a kind of slavery in the credit system. Take it all in all, there is every advantage to both man and wife, when the wife has a just portion allowed her to carry on the home business.

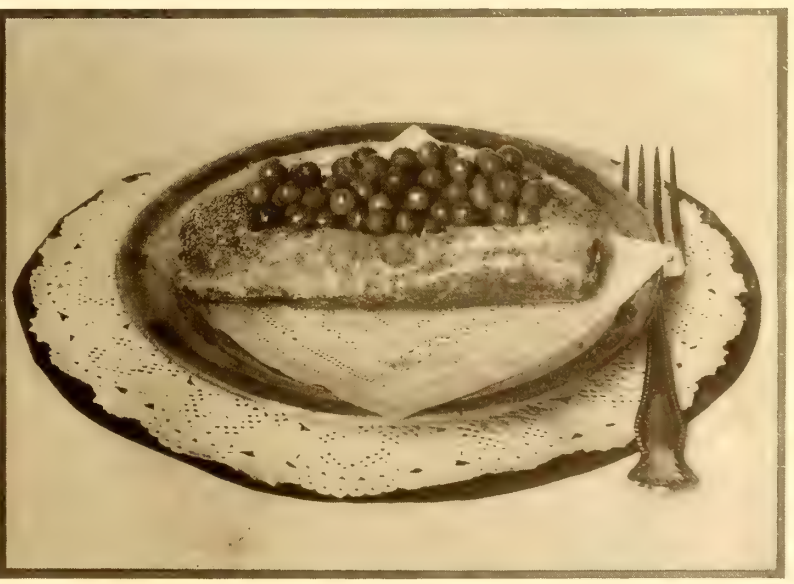
THE AMERICAN PAGEANT

(*Continued from page 241*)

were ransacked and verily the result was a remarkable collection. Even the British and Continental soldiers' uniforms were not lacking. Puritan costumes, gowns of Colonial dames, tilting hoops and modern dress were all required and it was well New England thrift had preserved these things, for the correct making of such costumes for several hundred people would have been an almost impossible feat, certainly for so small and out-of-the-way place as Thetford, whose cluster of villages hoarded so many relics.



A dainty way of serving mushrooms



Peas served in scooped out rolls

Among the properties the old-time stagecoach with its queer, narrow windows, its swinging middle seat and drop steps was prominent and there were other queerly fashioned old vehicles and sledges, some laden with the furniture and utensils of the earliest settlers.

Hard and earnest work as well as study is involved in the production of a real pageant, and it should not be lightly undertaken. A master mind must direct, one in which is combined with executive ability a knowledge and *feeling* of what is required of a pageant and what its strong points should be, also a discriminating judgment in selecting the subject. But the often splendid results justify all the labor and time expended, and the undeniably powerful effect, educational and moral, on the minds of the people is not to be left out of the reckoning. Great national lessons may be taught and uplifting schemes forwarded by the pageant that are quite beyond the reach of other means.

A COLONIAL HOUSE IN NEW JERSEY

(*Continued from page 245*)

Dr. Marvin's house includes unusually complete service quarters, for there are two pantries—one placed between the dining-room and the kitchen and filled with a steel safe for silver in addition to the devices usually placed in pantries, and just outside the kitchen door there is another pantry where the refrigerator is placed. The kitchen is equipped with two ranges, one for coal and another for gas, and the laundry has the usual built-in tubs. The kitchen is separated so completely from the rest of the house that cooking odors cannot possibly penetrate through the pantry or small hallways with which it is surrounded.

The broad stairway with its paneled wainscot and mahogany rail leads to the second floor, where five family bedrooms have been arranged. Between two of these rooms is placed a bath and another bathroom upon the opposite side of the house is planned for the other three rooms. Windows upon two sides of these bedrooms provide cross-current ventilation, which is necessary for well-designed sleeping-rooms, and two of the rooms open upon a flat deck which could very easily be adapted for out-of-door sleeping purposes. The roof space of the house is so ample that it has given sufficient space for a large garret, useful for storage, and three bedrooms and a bathroom for the maids, and the rooms upon this attic floor are ventilated and lighted by a wide dormer window which also greatly increases their apparent size and height.

This country home, during the months when trees and flowers are in their Summer or Autumn glory, seems to be set in a space literally hewn out of the woods which surround it upon three sides. This nearness to nature is also suggested by the huge stones which are so numerous that they often appear above the surface of the ground. The grounds about the house have been arranged in the best of taste and by planting shrubbery closely around the building and at angles near the sidewalk the lawn about the house appears vastly larger than it would were it cut up by numerous walks, flower beds and clumps of foliage, all beautiful and well enough in themselves. The designing of a country home should be so done that the beauty which nature has bestowed upon the spot may be retained and emphasized, and the degree in which this is done will be the degree of success which belongs to the place as a whole. It is often said that the country about our American cities is beautiful until it is "ruined by improvement," in the form of hideous suburban houses which are designed and built in utter defiance of every law of judgment or rule of good taste. While the beauty of a settled suburb cannot be the same as that of a virgin forest it can be a beauty of simplicity, of careful arrangement and designing, and these are just the points the observance of which have made this little country home so complete a success.

THE SANITARY PLUMBING OF HOMES

(*Continued from page 257*)

dry. Clean brass with oil and rotten stone. Acids and naphtha reduce its rich color and give it a whiter tone. Solarine and German putz pommade are also employed. The strainers, waste-valves and overflows of the tubs, sinks, and lavatories should be regularly cleaned. A disinfecting solution may be occasionally employed about the fixtures such as permanganate of potassium or diluted carbolic acid, but always follow their use with an abundance of water to prevent injury to pipes and traps and cleanouts on bath branch and main lines should be regularly opened and cleaned.

The sink should be free from grease as much as possible, putting it rather in the garbage, and the sink strainers should be firmly fastened in place; if loose there will be a temptation for careless servants to lift it and sweep crumbs and scraps into the pipe. A corner strainer should be employed in the sink.

One of the elemental axioms of plumbing is that light and air are absolutely indispensable about fixtures. Law demands this but intelligence and decency will naturally desire it. A fixture in some dark corner with all its suggestion of hidden dirt and clamminess should be repugnant to everyone.

It is an old lesson, but one often disastrously forgotten, that in a freezing climate no pipes should be run in exterior walls or exposed places and when they leave the basement in a chase its bottom should be sealed with some material like plaster of paris to prevent the passage of cold currents of air. On very cold nights the water can be shut off in the basement and the pipes drained. The method of letting a small stream flow in a fixture, besides being wasteful, does not always prevent freezing.

THE LIVING ROOM

(*Continued from page 259*)

originally by the cabinet-makers of the late Georgian period. The furniture was not purchased until the room was ready to receive it and then only a few necessary pieces were acquired, as it was deemed best to obtain the furniture by degrees to avoid overcrowding. By the fireside was placed a winged chair, upholstered in cretonne to give a note of gaiety, and in addition a slant-top desk, a long table, some Chippendale chairs and settee, and two small tables.

No central chandelier was used, the illumination being from brass electric sidelights, having dangling prisms and glass shades, and two electric lamps made from yellow matt glaze pottery vases, having yellow China silk shades.

The usual small decorative objects and pictures were conspicuous by their absence. There was only one picture in the room—a large photographic brown-print of a portrait after an original by Van Dyke—which was hung low over the mantel, and a pair of blue Hawthorne temple jars were placed at either end. The brass fittings for the fireplace, the leather desk set, the mahogany bookstacks, and the lamps were both ornamental and useful, and took the place of accessories that were purely decorative.

The brown, yellow and old-ivory color scheme made a beautiful setting for the mahogany furniture, and the painted walls suggested a paneled room, although not nearly as costly.

REFRESHING DESSERTS AND COOLING DRINKS

By MARGARET SEXTON

ON a hot Summer's night what could be more refreshing than a delicious sherbet. It cools one off for hours—it is not only palatable but is beneficial as well. There are such a tremendous variety of these tempting ices one could fill columns with recipes for them. The following are a particularly choice selection of excellent rules for the concocting of those which are most likely to please and be favorites after once testing their virtues:

RED RASPBERRY SHERBET

Now is the time to make red raspberry sherbet. The delicate flavor of the berry is very delicious used in an ice. The foundation of most ices is lemon and often orange is used with good effect. When preparing the liquid for freezing make a quart of good strong lemonade. Put a quart of red raspberries on the fire in a granite pan with a cup of sugar. Allow them to come up to a scald. This starts the juice nicely. Strain the berries through a jelly bag. When all the juice has been taken from the berries, add it to the lemonade. Whip up very lightly the whites of two eggs, add this to the lemonade as well. The cup of sugar may not prove sufficient, add more if necessary and see that it is thoroughly dissolved before putting into the freezer. All housekeepers who are accustomed to freezing ice cream or ices know the process of freezing. An ice or sherbet freezes because of its component parts being water far more rapidly than ice cream.

LEMON ICE

Lemon ice is always a favorite and it surely is delicious particularly if good and strong and frozen hard and smooth. To a quart of water use four lemons and the juice of one orange. The sweetening is a matter of taste. Always in an ice it is well to remember, however, that freezing takes away from the sweetness of any frozen dessert. Grate the orange and lemon peel. Put it in a fine sieve. Pour the water which is to be used over the grated peel several times. This gives a very good flavor without leaving the peel in the sherbet. Use the beaten whites of one or two eggs, according to the quantity you make. A very nice addition to lemon sherbet is a wineglass of sherry to a quart of the mixture. This to be added just before freezing.

GRAPE FRAPPE

Grape Frappe is not a usual dessert. It is pretty to look at and those who like the flavor of grape will enjoy it very much. Grape Frappe is made of unfermented grape juice with the addition of a little of the ever present lemon. Make a pint of lemonade, sweeten to taste, to this add a pint of grape juice, the white of one egg well beaten, freeze, serve in sherbet glasses. A teaspoonful of whipped cream is a very nice finishing touch to each glass. Set the glass in a dish on which grape leaves have been laid. The combination of color is good and the grape leaves suggestion of the fruit used.

PINEAPPLE

Pineapple, that most lucious of fruits makes an ice unsurpassed by any other fruit. There is a sharpness in the juice that gives a little "stingo" to the sherbet most agreeable. Peel and carefully remove the eyes from the pineapple, then grate on a fine grater into an earthern or granite bowl; to a good-sized pineapple use a cup and a half of sugar. Allow this to stand on the pineapple for half an hour before

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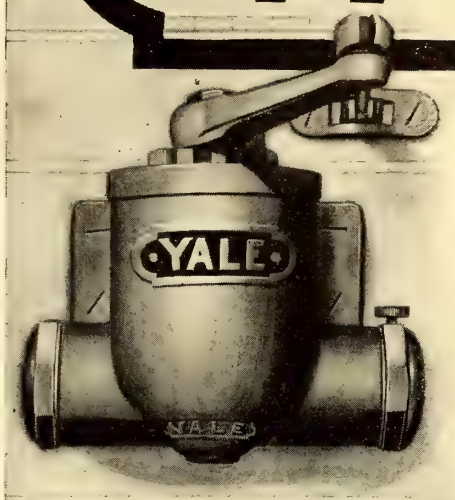

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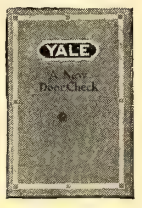

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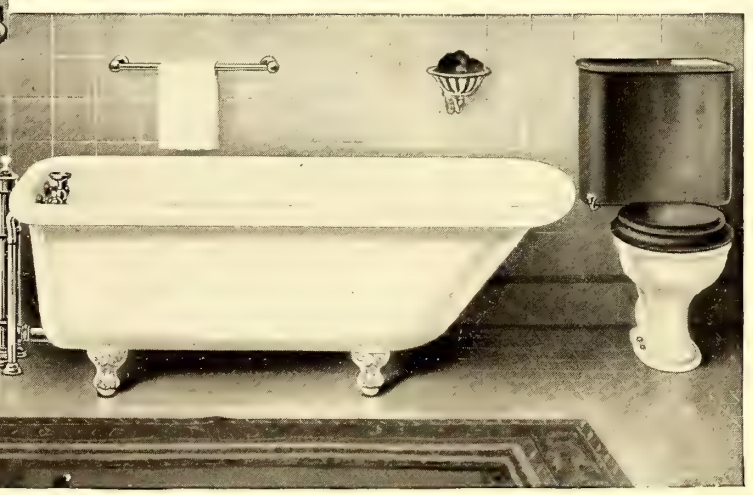

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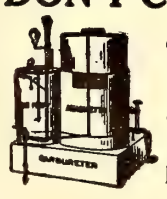

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using it. Make a pint of strong lemonade, use half a large juicy orange, then mix the lemonade and pineapple together with the white of an egg beaten up stiff. When thoroughly mixed together strain and just before freezing add a wine glass of sherry. No ice is more refreshing and delicious.

ORANGE SHERBET

Orange Sherbet is likely to be rather insipid if not properly made, but if it is sufficiently strong when mixed it will equal any sherbet. Grate the peel from four good-sized oranges and two lemons. Put this in a fine sieve—pour over it several times one quart of water. At the last put the juice in the water from both oranges and lemons and sweeten to taste. The oil from the peel of both lemons and oranges gives a very agreeable flavor. To a quart of the mixture add the white of one beaten egg.

COOLING DRINKS FOR THE THIRSTY

Tea punch sounds perhaps not very attractive, but when concocted in the following way is "a drink for the gods." The ingredients are: one quart of strong tea made from green tea, three quarters of a pound of sugar, the juice of five lemons and a half a pint of Jamaica rum. Squeeze the lemons and mix the juice with the sugar. Put the lemon skins in a bowl and pour the freshly drawn tea over them. Allow the tea to remain on the lemon skins until it is cold, then strain it from the skins and add the lemon juice, sugar and rum. Serve in tall ale glasses, fill the glass two thirds full with finely cracked ice; if you find that you have made the tea too strong, dilute it with a little water, then it would be well to add a small quantity of rum. This is the cup that cools, cheers and if too much is not consumed will not inebriate.

There is iced tea and iced tea. It is not a drink to be carelessly put together, as most people think. It can be far from agreeable, or is most refreshing and delicious if properly made. A pot of good strong tea should be brewed in the morning and poured off into a pitcher and the pitcher set on the ice where the tea will become thoroughly cool. Squeeze the juice from three or four lemons and sweeten it preparatory to blending the tea and lemon juice at night. Before serving dilute the tea not quite so weak as is palatable as it will be weakened by the ice with which the glasses should be half filled, the ice cracked of course in small pieces. Have lemons sliced thin and with each glass serve two slices for appearance sake as well as for the flavor given by the rind. A very nice tasty addition is a small quantity of rum or a half dozen whole cloves allowed to soak in the tea all day. The cloves add a spicy flavor that is very pleasant. Tall thin glasses such as are used at soda water fountains are particularly desirable to use for iced tea.

Orange juice prepared as follows as a drink, is particularly good in the morning before breakfast, or for invalids; not only is it refreshing but it is nourishing as well. Squeeze the juice of a large orange into a glass in which there is cracked ice, beat up an egg both white and yolk and when light mix thoroughly with the orange juice. As a last touch before serving put a small quantity of vichy or soda in just to liven up the drink a bit, but not enough to dilute it.

A most agreeable combination for a drink is strong lemonade ice cold and ginger ale. To a quart of lemonade in which five lemons and one orange has been used, add a bottle of ginger ale. With bits of tinkling ice through it and a sprig of mint on the top one could not wish for a more tempting drink.

SPURIOUS ANTIQUES IN THE EAST

CONSUL GENERAL George E. Anderson, Hongkong, has the following interesting article in a recent number of the U. S. *Daily Consular and Trade Reports*:

"The attention of tourists traveling in this portion of the world should be called to the fact that spurious goods of all sorts are upon the market of the Far East for sale to them. Not only are there spurious "antiques" of all sorts, such as chemically treated "old" brass, modern make "antique" porcelains, so-called "ancient" wall hangings, and works of art of all sorts, but there are some especially clever base imitations of standard modern goods.

"The imitation of antiques in this portion of the world has taken on all the forms to be found in Europe and elsewhere and has some features peculiar to the East, but the chief imitations of this class have had to do with Chinese porcelains and brass, ancient Chinese and Japanese armor and weapons, old Korean chests, old carved furniture, and similar goods, and in lesser degree of some of the various works of art in fine bronze, ivory, lacquer, and the like, in much of which in fact good imitations are not practicable.

"The imitation of old Chinese porcelains, as has long been known to connoisseurs, has long since become a branch of business so extensive and so successful that the sale of a genuine old piece nowadays is an event. While this is generally understood by collectors, the general public does not seem to appreciate the fact, for seven large new shops handling such goods were opened last year upon the principal shopping thoroughfare of Hongkong within the three months preceding the opening of what is generally considered the tourist season in this port. The trade in these imitation ancient porcelains has developed so far that there are regular auction sales in Hongkong of this imitation ware. To local people these goods are sold as imitations, but a considerable portion of them eventually find their way into the hands of people without knowledge of the actual facts and spurious "ancient" Chinese vases and other porcelains made in Europe and Japan have been scattered all over the world.

"Similar imitations of ancient brasses and bronzes, ivories, lacquers, and other art objects are made and sold in these or similar sales; in fact, there is almost no limit to the business. Genuine old pieces in brass, bronze, porcelain, jade, or in hangings or other embroideries or in similar goods beloved of collectors are practically not to be had on the market in Hongkong or other eastern ports except in very limited quantities, and to some extent, at least, there is better opportunity to acquire good Chinese and Japanese pieces in New York or London than in Hongkong or Shanghai. In spite of this fact, generally known to collectors and more or less known to the casual traveler, dealers here do a thriving and a very profitable business.

"Perhaps the worst feature of the situation is the fact that while there is a fair supply of good, standard quality modern art goods of all these classes the vast mass of such goods now sold are imitation goods of a quality false in some respect; and while the average tourist buyer may be on the lookout for imitation antiques he may be readily deceived by the "bronzes" of baser and cheaper metals, "silver" of pewter, particularly souvenir spoons and the like, clay "filled" silk, brass in all shapes and grades made in imitation of old pieces; in short, practically everything of any merit in Chinese or Japanese art, ancient or modern, which may be looked for.

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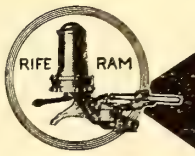

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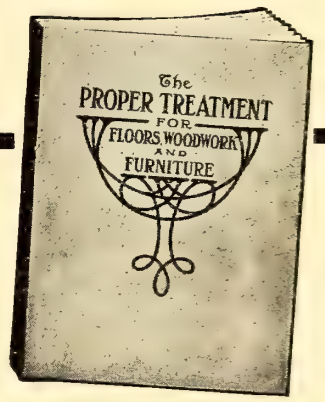

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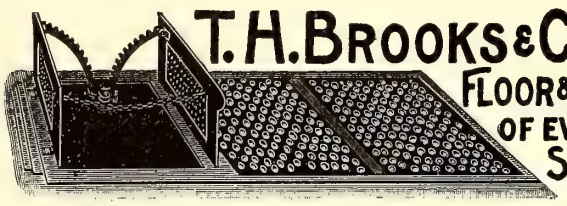

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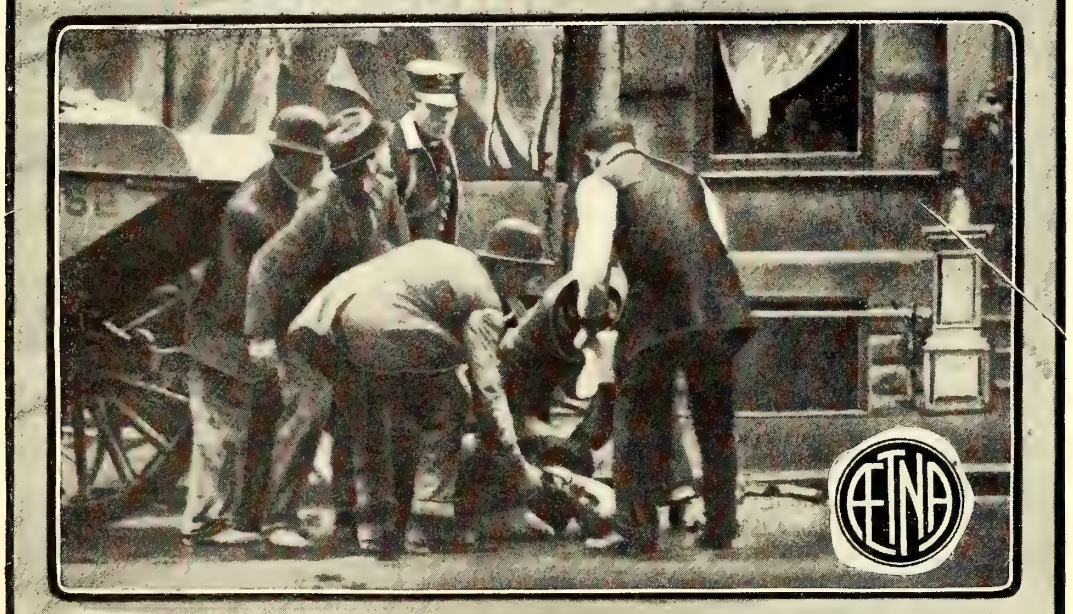

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NEW BOOKS

RUGS OF THE ORIENT. By C. R. Clifford. New York: Clifford & Lawton, 1911. Folio, 109 pages; illustrated. Price, $3.

The many people who take delight in Eastern rugs will welcome this folio, which is compliant and informing both to artistic and commercial demands. Seven rules of identification are given, covering design, coloring and technique, so that the purchaser who masters them may feel reasonably sure of the section from which the rug comes. There is a chronological history of the Orient, which furnishes a key to the overlapping of tribes and tribal characteristics as manifested in handicraft. A vocabulary of terms includes the rug districts and the nomenclature of manufacture. The characteristics of weaves are reduced to a table, which greatly facilitates identification. The use of rugs according to periods of history is another enlightening section. The most striking feature of such a folio as this should be, and is, the reproduction of various types of rugs. There are large plates of mellow tone and great beauty, interspersed with lesser illustrations and much clear descriptive matter. There are no reproductions in color, but aside from this the work is all that could be expected, and exhibits the greatest care in arrangement, accuracy in information, and taste in selection.

INEXPENSIVE HOMES OF INDIVIDUALITY. New and enlarged edition. Introduction by Frank Miles Day. Chapter on Costs, by Aymar Embury, II. New York: McBride, Nast & Co., 1912. Cloth; 16mo.; illustrated; 80 pages. Price, 75 cents net.

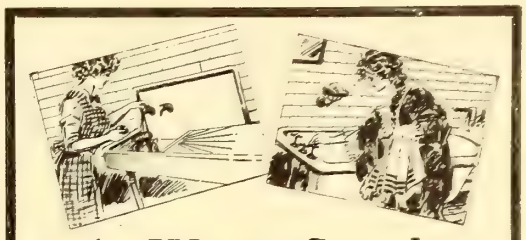
This is a collection of half-tone illustrations and plan diagrams of twenty American homes, nearly all of which have appeared before in one of the periodicals issued by its publishers. Better paper and presswork might have been used to advantage and the book is hardly to be considered as an important addition to the literature of American domestic architecture.

PRINCIPLES AND PRACTICE OF POULTRY CULTURE. By John H. Robinson. Boston: Ginn and Company. Cloth, 8vo. Illustrated. 611 pages. Price, $3.00.

The method of treatment adopted in this book is the simple, scientific method,—that of presenting essential facts in logical order, a method that enables one to have a more comprehensive view of the subject as a whole than could be obtained otherwise. It is doubtful if a better volume on poultry culture for the homemaker is available and any one interested in the subject cannot fail to find it of great service.

AS THE TWIG IS BENT. By Susan Chenery. Boston: Houghton, Mifflin Company. Cloth, 8vo. 164 pages. Price, $1.00 net.

"As the Twig is Bent" strongly appeals to the modern mother—full of delightful surprises and useful lessons that may be applied in the school as well as the home, dealing with truth, honor, obedience, unselfishness, etc. One has access to interesting bits of conversation between two sisters, one a school-teacher, the other a mother of two bright, vivacious children, Frank and Margery. The method used by this mother is deftly related by the authoress.



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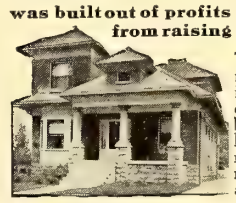

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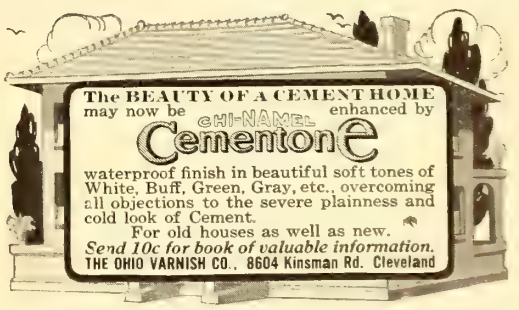

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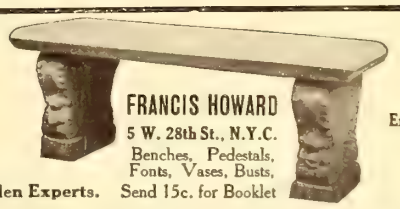

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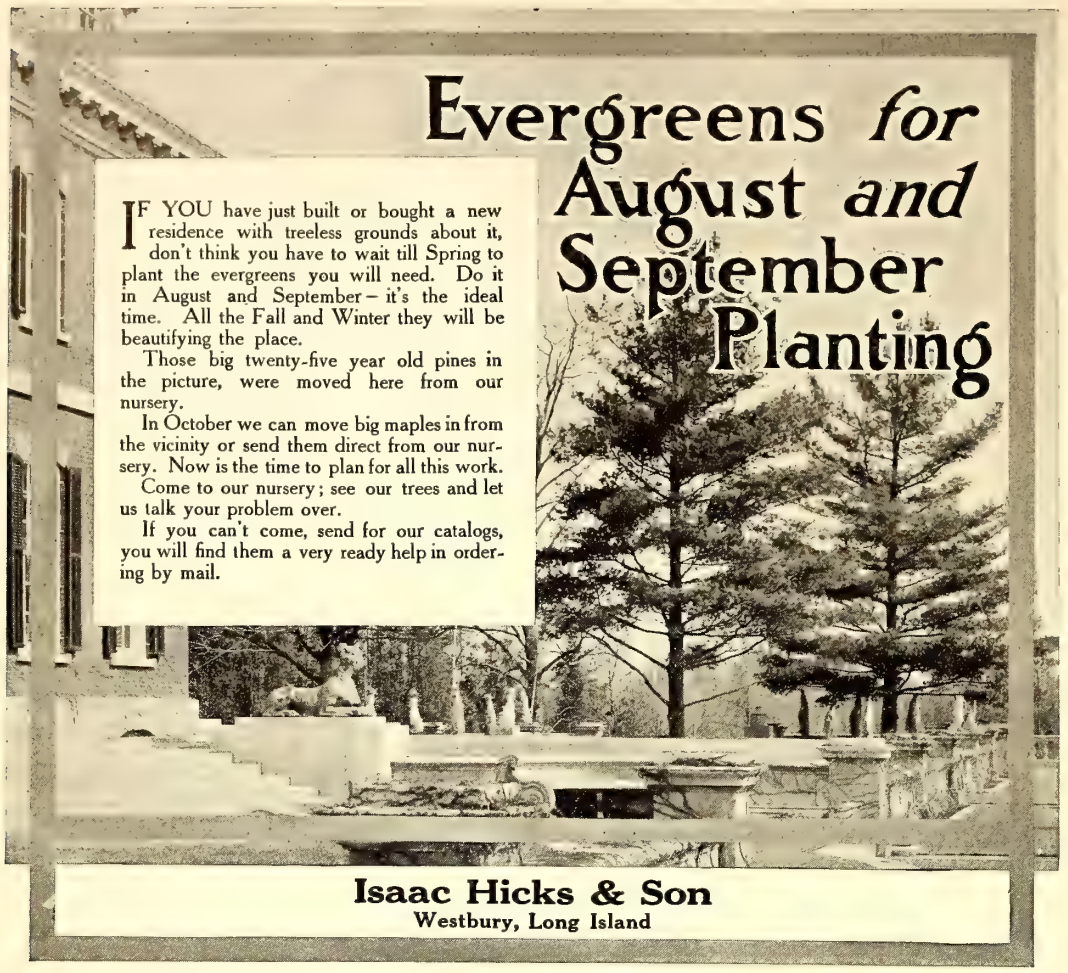

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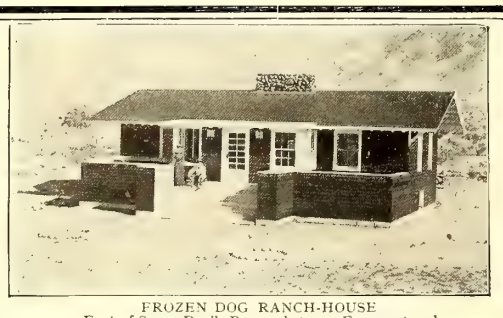

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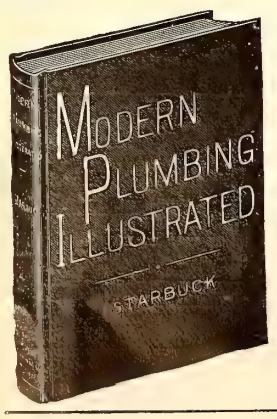

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Plumbing for Stables
Plumbing for Factories
Plumbing for School Houses, etc. [by Electricity
Thawing of Underground Mains and Service Pipes

THE IMPORTANT TIMBER TREES OF THE UNITED STATES. By Simon B. Elliott. Boston. Houghton-Mifflin Company. 1912. Cloth. 8vo. Illustrated. 382 pages. Price, $2.50 net.

This volume is an authoritative and practical handbook of everyday forestry for the use of farmers and land-owners, as well as of foresters, students of forestry, and lumbermen. The author, who is a member of the Forestry Reservation Commission of Pennsylvania, and has been a life-long student of the subject, has made a thorough study of forestry problems in both this country and Europe, but the book is free from technicality and confusing detail, and one to be recommended. It is helpfully arranged, clearly written, and fully illustrated from photographs in such a way as to make the pictures reinforce as well as illustrate the text. It is a sound and excellent book, which will meet a definite and large demand.

EVERBLOOMING ROSES. By Georgia Torrey Drennan, New York: Duffield & Co., 1912. Illustrated, 250 pages. $1.50 net.

This is one of the most readable of American books on the subject of Roses that the garden beginner could have, containing excellent cultural directions and a dependable list of varieties.

LAUGHTER. By Henri Bergson, New York: The Macmillan Co., 1912. Cloth, 8vo.; 200 pages. Price, $1.25 net.

In this essay on the meaning of the comic by M. Henri Bergson, one of the most brilliant members of the Institute of France, the author has wisely confined himself to exposing and illustrating his novel theory of the comic without entering into a detailed discussion of other explanations already in the field. He none the less indicates in discussing the comic in general, the comic element in forms and movements, expansive force of the comic, the comic element in situations and in words and the comic in character, why the principal theories, to which they have given rise appear to him inadequate. To quote only a few one may mention those based on contrast, exaggeration, and degradation.

EUROPEAN BEGINNINGS OF AMERICAN HISTORY. By Alice M. Atkinson. Boston: Ginn & Company. Cloth. 12mo. Illustrated. 398 pages. Price, $1.00.

This is an excellent introduction to the study of United States history. The writer has followed in its essentials the program of the Committee of Eight, appointed by the American Historical Association in 1905 to consider a course of study in history for elementary schools. In the present volume England has been made the connecting link between America and those European countries that have played a part in the world from which our country was peopled. Significant periods and movements have been illustrated as far as possible through England. Primitive man, Rome and Greece, the Northmen, the Church, and the Crusades enter in this way, as well as mediæval life in town and country. Stories of the age of exploration and discovery also form a part of the tale. The book ends with the death of Queen Elizabeth and the movement toward the colonization of America. The aim throughout has been to tell vividly, simply, and fully about a few great persons and events; to reduce the number of unimportant and unrelated historical events; to maintain strict historical accuracy; and to bring the past into relation with the present at as many points as possible.

How To Save Money. By N. C. Fowler, Jr. Chicago: A. C. McClurg & Co. 1912. Cloth. 16mo. 287 pages. Price $1.00 net.

This useful book is not intended for large investors, or for professional money-changers, or for speculators. It is addressed, primarily, to men and women of every age who are financially able to save moderately and systematically, and who wish to learn, therefore, of every form of investment, that they may place their money with a maximum of safety.

Training the Bird Dog. By C. B. Whitford. New York: The Outing Publishing Co., 305 pp. Price, $1.25 net.

This is one of the most complete and exhaustive treatises ever written on the development of the hunting dog. It will be found useful to every sportsman, and should be in the library of every dog owner, as Mr. Whitford is a writer of authority.

Making a Newspaper. By John L. Given. New York: Henry Holt and Company. Cloth, 16mo. 325 pages. Price, $1.50 net.

This is a book worth reading, an interesting and detailed account of the business, editorial, reportorial and manufacturing organization of the daily newspaper by a trained newspaper man. In this day and generation, when we are dependent upon newspapers for so much, it behooves us to interest ourselves somewhat in the subject of newspaper making, of what constitutes a great newspaper. The volume shows how editors learn of the happenings that need their attention; how physicians, ministers, merchants, builders and many others tell the newspaper, without realizing it, of their own and their neighbors affairs, and it contains anecdotes and the record of actual experience, which adds to the value of Mr. Given's narrative.

The Book of Camping and Woodcraft. By Horace Kephart. New York: Outing Publishing Company. Cloth, 16mo. Illustrated. 331 pp. Price, $1.50 net.

The author's aim in writing this valuable little book was to make its pages of practical service to those who seek rest or sport in the wilderness, or whose business calls them thither. As one may define woodcraft as "the art of getting along well in the wilderness by utilizing Nature's storehouse," Mr. Kephart's volume is a handbook of great service in this pursuit.

The Half-Timber House. By Allen W. Jackson. New York: McBride, Nast & Company. 1912. Cloth. 8vo. Illustrated. 115 pages. Price, $2.00 net.

The various chapters of this book have not been written with any intention of presenting a technical treatise. In his preface the author states that it is addressed primarily to the general reader having an interest in house building or to those who have in mind building for themselves. Whether or not the publishers have felt it necessary to make the book bulky, it is a pity such heavy, unwieldy paper was employed in the printing, and the half-tone pages are marred by the contrast with them. An unpleasant book to handle is always a difficult book to read, notwithstanding which Mr. Jackson's text, despite the handicap placed upon it by the publishers, is worth the effort of reading it, even though not with patience. The chapter on "Methods of Construction" is especially interesting and helpful.

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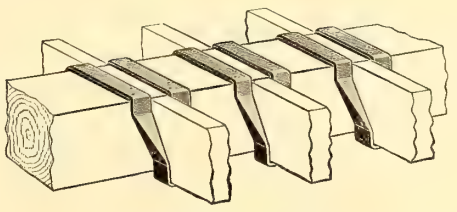

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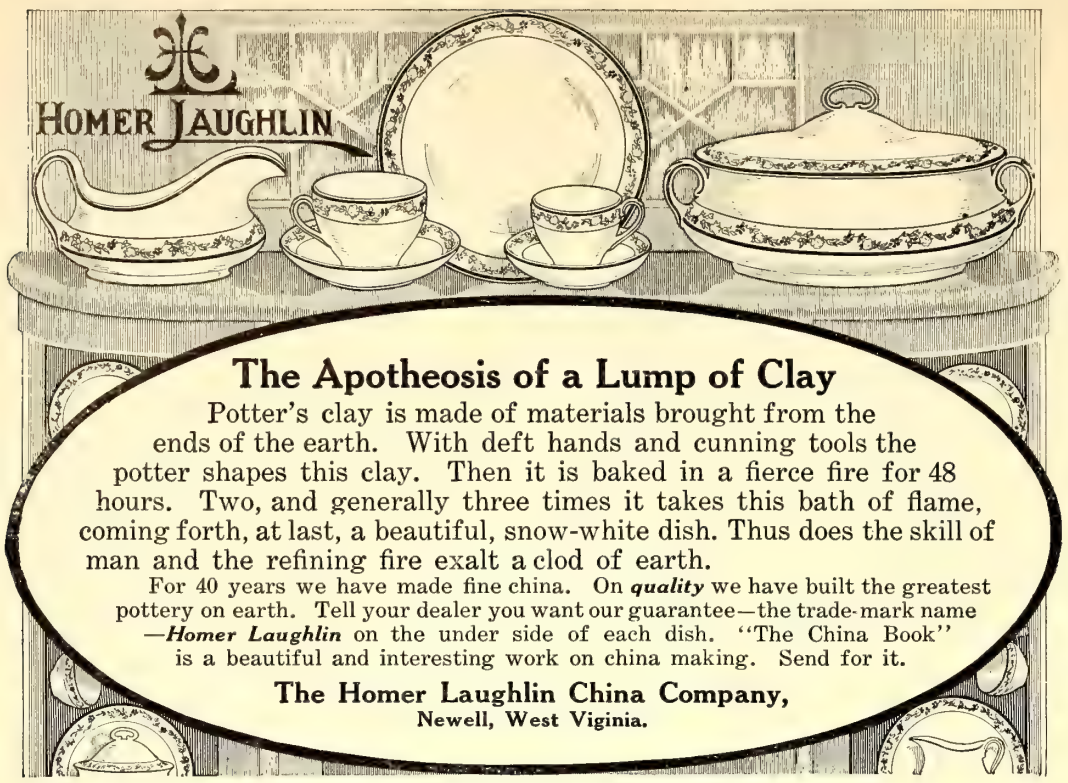

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Send particulars. My name, address and date of birth are written below.

DOLL-MAKING IN GERMANY

THE old home of the doll is Thuringia," writes Consul-General Frank Dillingham, from Coburg to the *Daily Consular and Trade Reports,* "especially the town of Sonneberg, twelve miles from Coburg. Most of the poorer families in and around Sonneberg are engaged in this industry, which is the chief source of revenue of the population, giving employment for the whole year. The work demands a great deal of practice and skill, as well as time and trouble. The inhabitants start making dolls while very young, and by constant practice are finally able to work with astonishing accuracy and speed. In the doll industry only some special part of the dolls is made by each person. Some make the bodies, others the heads, and still others the arms, hands, etc. By this division the work is done much quicker and better.

"The heads are first molded, and, when sufficiently dry, the eyes are cut out by a skilled worker with a very thin, sharp knife. This is extremely delicate work because all of the sockets have to be of uniform size or the eyes do not fit. After being burned, the heads are painted, waxed, or glazed, depending on the material from which the heads are made. The arms, legs, and hands, are produced in a similar but simpler manner, as the painting consists only in giving the necessary flesh color, while the heads must have rosy cheeks, red lips, and dark or light eyebrows, depending on the color of the eyes. The setting of the eyes and the making and attaching of the wigs involve a number of other processes.

"The doll industry is now commencing to make the 'character doll' in restricted numbers. The model is made by an artist and the molds are then copied from this model. The painting of these dolls is done with especial care, and, consequently, their price is considerably higher than that of the commoner type of doll.

"The assembling of the different parts of the dolls is often very complicated. The best jointed dolls have stout elastic cord on the inside, to which the movable parts are attached. A special branch of the industry is devoted to the making of dresses and hats. The latest Parisian styles are copied in dressing the larger-sized dolls, and the creations turned out compare very favorably, in miniature, with the original."

BATHROOMS IN ARABIA

AN American consular representative in Aden, Arabia, has written the following note regarding bathrooms in British Arabia:

"This is a primitive country. Drinking and bathing water is drawn from the sea, condensed, and delivered to residents in wagons at one half cent a gallon.

"There is no plumbing and modern bathroom fittings are conspicuous by their absence. We use washtubs for bathing purposes, and for shower baths we use an ordinary tin bucket with a sprinkler soldered in the bottom and suspended from the ceiling. Thus a shower arrangement costs only fifty cents. How soon these conditions will change for the better can not be definitely stated. The British authorities have considered the advisability of piping water into Aden from Lahej, about thirty miles distant, but have come to no decision in the matter as yet. Should a change take place, this consulate will do its utmost to insure the introduction of American plumbing and bathroom facilities."

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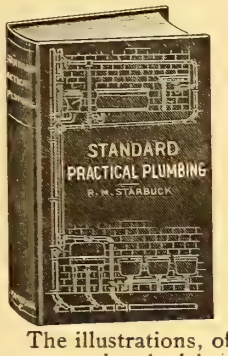

This work is especially strong in its exhaustive treatment of the skilled work of the plumber and commends itself at once to everyone working in any branch of the plumbing trade. It is indispensable to the master plumber, the journeyman plumber and the apprentice plumber. Plumbing in all its branches is treated within the pages of this book, and a large amount of space is devoted to a very complete and practical treatment of the subjects of hot-water supply, circulation and range boiler work.

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Following is a list of the chapters:

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V. Traps.
VI. Siphonage of Traps.
VII. Venting.
VIII. Continuous Venting.
IX. House Sewer and Sewer Connections.
X. House Drain.
XI. Soil Piping, Roughing.
XII. Main Trap and Fresh Air Inlet.
XIII. Floor, Yard, Cellar Drains, Rain Leaders, Etc.
XIV. Fixture Wastes.
XV. Water Closets.
XVI. Ventilation.
XVII. Improved Plumbing Connections.
XVIII. Residence Plumbing.
XIX. Plumbing for Hotels, Schools, Factories, Stables, Etc.
XX. Modern Country Plumbing.
XXI. Filtration of Sewage and Water Supply.
XXII. Hot and Cold Supply.
XXIII. Range Boilers; Circulation.
XXIV. Circulating Pipes.
XXV. Range Boiler Problems.
XXVI. Hot Water for Large Buildings.
XXVII. Water Lift and Its Use.
XXVIII. Multiple Connections for Hot Water Boilers; Heating of Radiation by Supply System.
XXIX. Theory for the Plumber.
XXX. Drawing for the Plumber.

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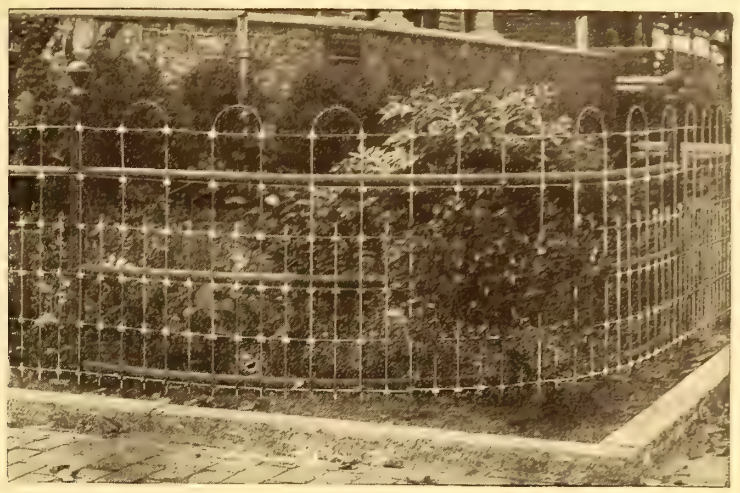

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By RALPH C. DAVISON

THIS book describes in detail in a most practical manner the various methods of casting concrete for ornamental and useful purposes and covers the entire field of ornamental concrete work. It tells how to make all kinds of concrete vases, ornamental flower pots, concrete pedestals, concrete benches, concrete fences, etc. Full practical instructions are given for constructing and finishing the different kinds of molds, making the wire forms or frames, selecting and mixing the ingredients, covering the wire frames and modeling the cement mortar into form, and casting and finishing the various objects. With the information given in this book any handyman or novice can make many useful and ornamental objects of cement for the adornment of the home or garden. The author has taken for granted that the reader knows nothing whatever about the material, and has explained each progressive step in the various operations throughout in detail. These directions have been supplemented with many half-tone and line illustrations which are so clear that no one can possibly misunderstand them. The amateur craftsman who has been working in clay will especially appreciate the adaptability of concrete for pottery work inasmuch as it is a cold process throughout, thus doing away with the necessity of kiln firing which is necessary with the former material. The information on color work alone is worth many times the cost of the book inasmuch as there is little known on the subject and there is a large growing demand for this class of work. Following is a list of the chapters which will give a general idea of the broad character of the work.

I. Making Wire Forms or Frames.
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IV. Plaster Molds for Objects having Curved Outlines.
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VI. Glue Molds.
VII. Colored Cements and Methods Used for Producing Designs with same.
VIII. Selection of Aggregates.
IX. Wooden Molds—Ornamental Flower Pots Modeled by Hand and Inlaid with Colored Tile.
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XI. Concrete Benches.
XII. Concrete Fences.
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Compiled and Edited by **A. RUSSELL BOND**

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EVERY practical mechanic, whether amateur or professional, has been confronted many times with unexpected situations calling for the exercise of considerable ingenuity. The resourceful man who has met an issue of this sort successfully seldom, if ever, is adverse to making public his methods of procedure. After all, he has little to gain by keeping the matter to himself and, appreciating the advice of other practical men in the same line of work, he is only too glad to contribute his own suggestions to the general fund of information.

About a year ago it was decided to open a department in the *Scientific American* devoted to the interests of the handy man. There was an almost immediate response. Hundreds of valuable suggestions poured in from every part of this country and from abroad as well. Not only amateur mechanics, but professional men, as well, were eager to recount their experiences in emergencies and offer useful bits of information, ingenious ideas, wrinkles or "kinks" as they are called. Aside from these, many valuable contributions came from men in other walks of life—resourceful men, who showed their aptness at doing things about the house, in the garden, on the farm. The electrician and the man in the physics and chemical laboratory furnished another tributary to the flood of ideas. Automobiles, motor cycles, motor boats and the like frequently call for a display of ingenuity among a class of men who otherwise would never touch a tool. These also contributed a large share of suggestions that poured in upon us. It was apparent from the outset that the Handy Man's Workshop Department in the *Scientific American* would be utterly inadequate for so large a volume of material; but rather than reject any really useful ideas for lack of space, we have collected the worthier suggestions, which we present in the present volume. They have all been classified and arranged in nine chapters, under the following headings:

I., Fitting up a Workshop; II., Shop Kinks; III., The Soldering of Metals and the Preparation of Solders and Soldering Agents; IV., The Handy Man in the Factory; V., The Handy Man's Experimental Laboratory; VI., The Handy Man's Electrical Laboratory; VII., The Handy Man about the House; VIII., The Handy Sportsman; IX., Model Toy Flying Machines.

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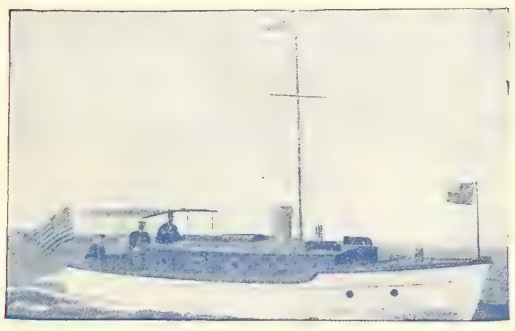

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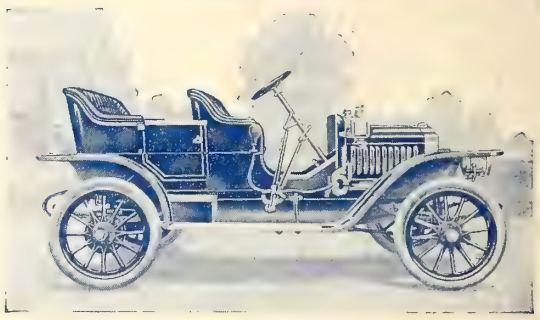

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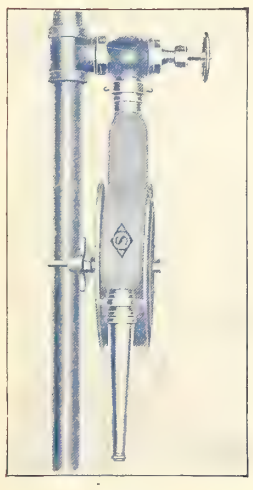

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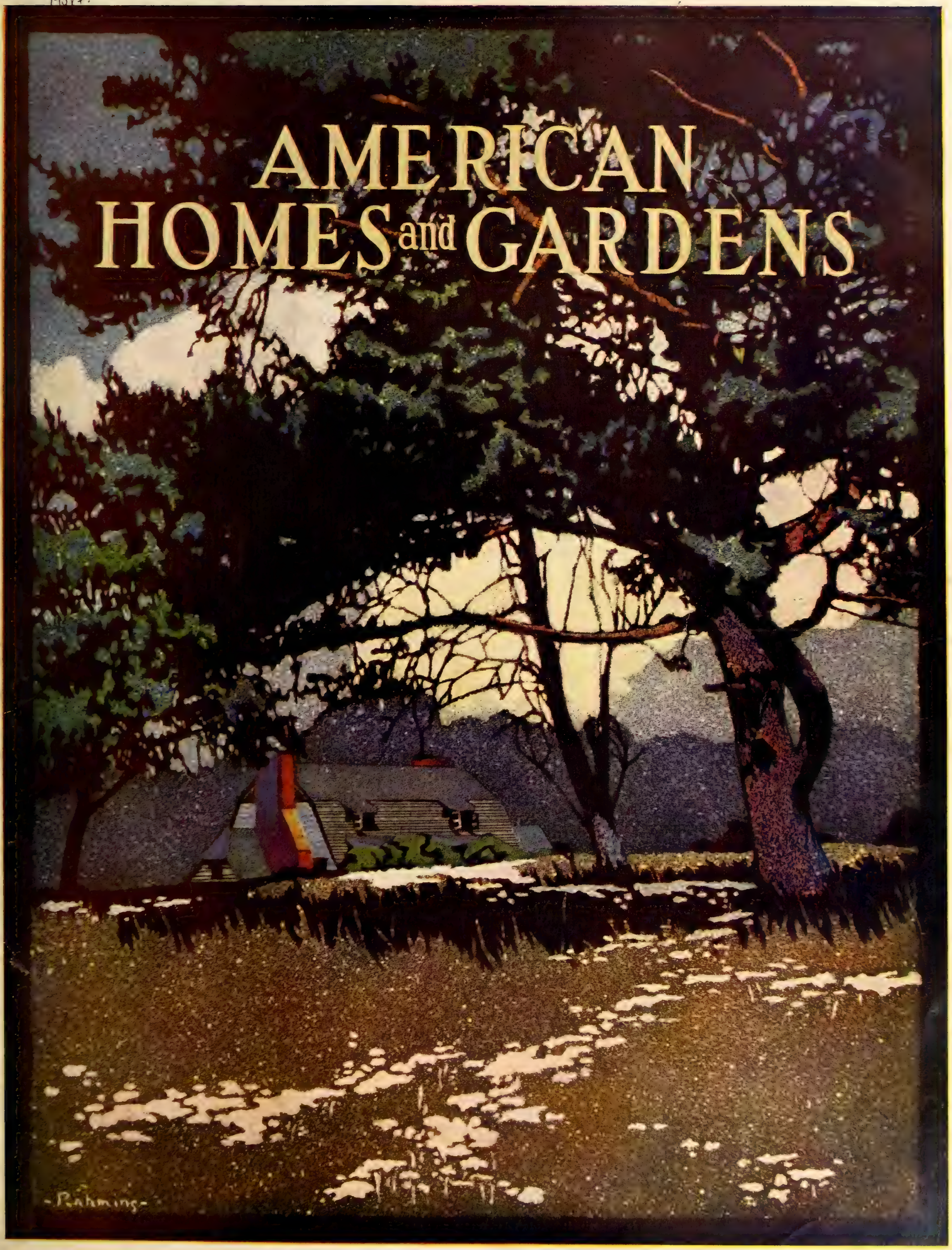

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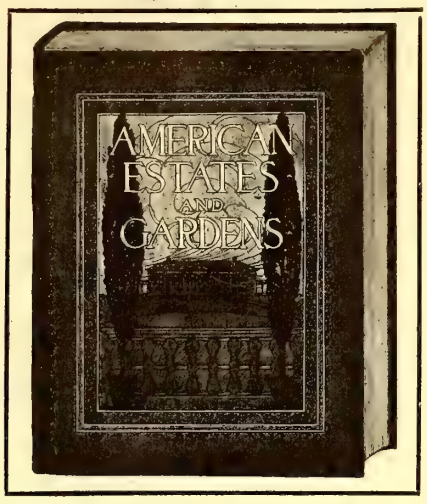

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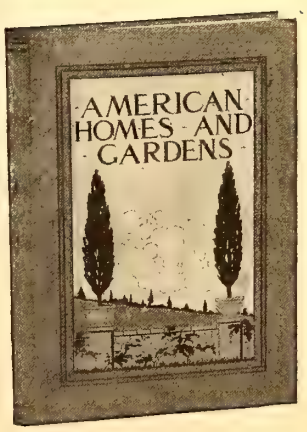

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PLANNING THE POULTRY HOUSE

By E. I. FARRINGTON

IT is wise not only to plan but to build the poultry house early in the season, so that it will have time to dry out thoroughly before the coming of cold weather. It is more important that the house should be dry than that it should be warm. Indeed, experience has shown that houses with large openings in front which are never closed except in extremely cold or very stormy weather are preferable to any other kind, whether on a commercial plant or when used by an amateur.

Houses built with an eye to profits should not cost over one dollar for each fowl to be confined in them. If that consideration does not enter into the plan, the poultry house may be made as elaborate architecturally as desired. On large estates it is customary to have all the outbuildings conform to a general design. Whatever embellishments the house may have, however, the interior arrangement should be made as simple as possible, with all the fixtures so constructed that they may be easily and quickly removed. In no other way is it possible to keep a poultry house free from insect pests. Cracks, crevices and other hiding places for lice should be as few as possible and the walls should be smooth. One of the patent wall boards may be used to advantage in a well-made poultry house either for partitions or to sheath the interior. The expense is small and this material is effective in making a house tight and dry, while it offers no harboring place for lice or mites.

The shed roof form of house is the most common and the most satisfactory, all things considered. Likewise, it is the cheapest form to build. Only a slight slope of the roof is needed if a high grade roofing paper is used as a covering. If shingles are used, the slope must be greater. The front wall should be high enough so that the attendant can move about without stooping, and allowance must be made for a foot or more of sand and litter on the floor, which will bring the floor surface at least that much higher than the surface of the ground outside. A well-made concrete foundation is a great advantage, adding to the life of the house and keeping out rats if deep enough. Cement floors are often used, but require a deep layer of cinders, coal ashes or small stones under them, for otherwise moisture from the earth will come through the cement. Many cement floors have proved damp because not properly constructed. A cement floor should always be covered with sand or a litter, for the surface is too hard for the feet of the birds to rest on it.

If a board floor is used, it may be made very satisfactory by constructing it double with heavy tarred paper between. In localities where the soil is light, an earth floor can hardly be improved upon, if it is built up a foot higher than the ground outside, so that there will be perfect drainage. Protection against rats may be provided by using inch-mesh chicken wire all around the house. The wire should extend into the ground a foot and then away from the

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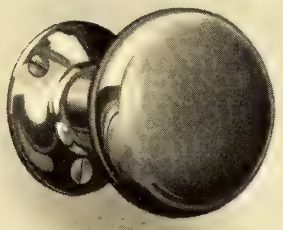

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building for another foot underground. Twice a year an inch or more of the earth should be removed from the top of the floor and replaced with fresh, clean sand.

It costs less to build a square house than a long and narrow one. Deep houses are coming into favor, especially for those of the open-front type. The sun's rays, however, will not reach the farther end of a deep house unless the front is made unusually high, and to meet this difficulty the semi-monitor type of house is being advocated again, after being in disrepute for several years. Such a house has a double pitch roof, the rear section extending above the front part and carrying a row of windows by means of which a flood of light is admitted. A house of this type has been used with excellent results at the New Jersey state experiment station.

The average amateur will hardly have a house deeper than ten or twelve feet, and such a house will receive sufficient light from the front. Ten by twelve is about the right proportions for a house to carry from twenty-five to thirty hens. If twice as many are to be kept, the house may be twelve by twenty. There is a growing tendency to keep the hens in larger flocks than formerly, so that fifty or sixty birds may be allowed to run together. This method greatly economizes labor and allows more crowding of the fowls. A hen feels that she has a greater degree of liberty when she is able to walk straight ahead for twenty feet before meeting an obstruction, than when she finds something in her way after walking ten feet.

The one point to be guarded against in an undivided long house is draughts, and the way to avoid this danger is to have all the openings in front. If there is a door at the end, it should be kept shut. Even when these precautions are taken, there is often a decided flow of air, and in order to protect the birds from it at night, partitions at intervals of ten feet and extending a foot or two beyond the perches at the rear of the house may be constructed. Such partitions should be made of matched boards or wall board and are also useful in houses divided into small pens, where the divisions are made with poultry netting. In the latter case, there should also be boards at the bottom of the netting to a point higher than the heads of the birds in order to prevent quarreling as well as draughts.

Many practical poultrymen are doing away with dropping boards, substituting an upright board in the floor far enough in front of the perches so that the droppings will be confined at the rear of the house. This plan saves much work, but the amateur with a few hens finds it tidier to have dropping boards and is able to handle the manure to better advantage when using it on his garden. Unless the dropping boards are cleaned every two or three days, though, it is better to dispense with them.

The question of ventilation had vexed poultry keepers for years before the plan of using muslin instead of glass was advocated. That solution of the problem has been adopted by poultry keepers everywhere, and is no less effective because extremely simple. Muslin admits air freely but prevents draughts, as well as rain. Hens do not mind cold nearly as much as draughts and dampness. When muslin is used in place of glass the fowls breath fresh air at all times, day and night; and fresh air is the one thing they need above all else. This innovation has relieved the poultry keeper of much of his work, for disease is much less prevalent. This is one reason why larger flocks are being kept together. Breeders are finding that this

plan is now a safe one, although long considered not to be.

Many extremists use houses the fronts of which are entirely open, being covered only with poultry wire to keep the hens in and intruders out. This plan may be followed safely if canvas, muslin or burlap curtains are so arranged that they may be dropped in front of the perches on cold nights. Probably the best arrangement for a small poultry house is secured by having an opening running the long way of the house and with the bottom about two feet above the floor, with an ordinary window at one end of this opening and extending almost to the floor. A muslin curtain may be tacked to a frame hinged to the top of the opening, but should be used only when the weather is stormy or very cold. The opening is high enough so that the wind will not blow directly on the birds, but the glass window will admit sunlight to the floor early in the morning. The glass will also serve to light the house better when the muslin curtain is closed.

AN INCUBATOR AGES OLD

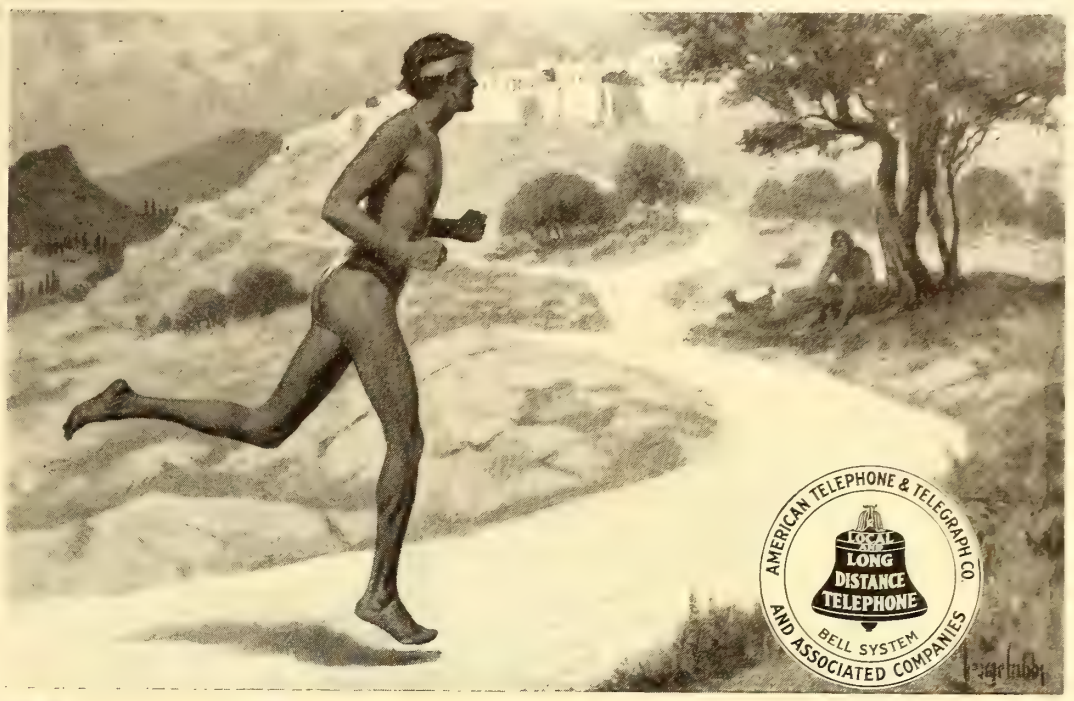
IN a lonely village lying in the midst of dry Egyptian sands, chickens are being incubated to-day, according to a correspondent of the Chicago *News,* just as in Biblical times and on a scale and by a method calculated to astonish European and American poultry raisers. Evernest Kellerstrass, a poultry expert of Kansas City, Mo., recently visited one of these Egyptian incubators.

"Of course," he said, "it is known by all chicken fanciers that incubation was carried on in Egypt in ancient times. Personally, however, I did not dream that it was still being carried on by the same archaic method. It was the porter of a hotel in Cairo, who, finding that I was interested in meeting the local egg merchants, suggested that I might find an incubator in some village.

"A few days later a man came and informed me that he could conduct me to a village where there was an incubator. So we took a train inland and then after riding on mules for several hours arrived at a village where, sure enough, there was a thriving incubator. The proprietor was a tall, old Arab.

"The incubator, like the house that adjoined it, was built of adobe and shaped like a beehive. I entered it by a small oval door. The place was full of smoke, but I distinguished within the great beehive six objects resembling smaller beehives. There were three on each side. Each of these was raised on a table above the floor and was pierced with a small oval opening. These were the ovens. They were supplied with heat from circular fireplaces beneath, in which straw and chaff were kept smoldering without coming to a blaze. In each oven there were no less than 6,000 eggs. There was an open spot in the center where one of the children crawled in to turn the eggs.

"One oven happened to be hatching when I was there, and it was a wonderful sight to see the chickens popping out by the dozens. A boy inside was busy clearing away the shells and also gathering up handfuls of chickens when dry and tossing them on a pile of chaff. I was naturally astonished. The Arab assured me that his ancestors had incubated in this manner as far back as human memory reached. We believe in America that an incubator must have 103 degrees of heat. Here there are no thermometers and the Arab said he gauged the temperature by sticking his hand inside. Using my thermometer, I found



Message Bearers Ancient and Modern

Pheidippides, the most noted runner of ancient Greece, made a record and an everlasting reputation by speeding 140 miles from Athens to Sparta in less than two days.

Runners trained to perfection composed the courier service for the transmission of messages in olden times. But the service was so costly it could be used only in the interest of rulers on occasions of utmost importance.

The Royal messenger of ancient times has given way to the democratic telephone of to-day. Cities, one hundred or even two thousand miles apart, are connected in a few seconds, so that message and answer follow one another as if two persons were talking in the same room.

This instantaneous telephone service not only meets the needs of the State in great emergencies, but it meets the daily needs of millions of the plain people. There can be no quicker service than that which is everywhere at the command of the humblest day laborer.

Inventors have made possible communication by telephone service. The Bell System, by connecting seven million people together, has made telephone service so inexpensive that it is used twenty-five million times a day.

Captains of war and industry might, at great expense, establish their own exclusive telephone lines, but in order that any person having a telephone may talk with any other person having a telephone, there must be One System, One Policy and Universal Service.

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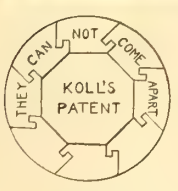

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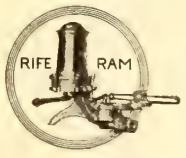

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Scientific American Supplement 528 describes Inclined-shaft Rotary Engine, using the universal-joint principle.

Scientific American Supplement 558 describes the Kingdon Engine, a "wabble-disk" design.

Scientific American Supplement 636 describes Riggs' Revolving-cylinder Engine, suggesting the present Gnome motor.

Scientific American Supplement 775 describes Revolving-cylinder engines of several forms.

Scientific American Supplement 1109-1110-1111 contains a series of great interest, describing and illustrating all the principal types of rotary engines and pumps. This set should be studied by every inventor and designer.

Scientific American Supplement 1112 describes the Filtz Rotary Motor, using helical surfaces.

Scientific American Supplement 1158 describes Hult's Rotary Engine, an eccentric-ring type.

Scientific American Supplement 1193 describes Arbel & Tihon's Rotary Motor, an ingenious eccentric type, now on the market as a pump.

Scientific American Supplement 1309 describes The Colwell Rotary Engine, in which a piston travels entirely around an annular cylinder.

Scientific American Supplement 1524 describes Rotary Engine on the intermittent-gear principle.

Scientific American Supplement 1534 contains a valuable column on the difficulties of rotary engine design.

Scientific American Supplement 1821 contains an article describing many new forms of rotary engines of the most modern design.

Scientific American, No. 23, Vol. 102 contains a full description of the recent Herrick Rotary Engine, an eccentric type with swinging abutment.

Scientific American, No. 23, Vol. 104 describes Jarman's Engine, on the sliding-valve principle.

Scientific American, No. 14, Vol. 106 describes the Augustine Rotary Engine, with novel features incorporated in the sliding-valve design.

Each number of the Scientific American or the Supplement costs 10 cents. A set of papers containing all the articles here mentioned will be mailed for $2.00. They give more complete information on the subject than a library of engineering works. Send for a copy of the 1910 Supplement Catalogue, free to any address. Order from your newsdealer, or the publishers.

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the temperature in the various ovens ranged anywhere from 57 to 98 degrees. This upsets our theory.

"I asked the Arab what per cent. of the eggs hatched out, and he immediately asked me the same question. I replied that sometimes it was 30 to 40 per cent. and sometimes it was 70 to 80 per cent., whereupon the Arab laughed and said that with him it was never less than 90 per cent.; otherwise he would starve. He then explained that he hatched for forty neighbors for five months in the year, beginning in January, getting 6,000 eggs from each. He is paid $5 for his work by each of his customers.

EGGS IN EGYPT

THE hatching of eggs by means of artificial heat has been practiced in China and in Egypt from prehistoric times. In the latter country there still exist ancient egg-hatcheries or "mamals" that have been in continuous use in the same family for many generations. These incubators consist of large brick ovens that will hold about thirty to sixty thousand eggs at a time. The fire is built inside the oven and is watched carefully for ten days, after which no additional heat is necessary. The method of building the fires and maintaining them so as to preserve the right temperature are trade secrets that are jealously guarded and usually kept in the family. About sixty-five to seventy per cent of the eggs are said to be successfully hatched by these methods. The production of eggs for the export trade has come to be a very important industry of Egypt. During the Winter of 1911-1912 the export amounted to 83,608,000 eggs, having a value of $627,000. That is at the rate of about nine cents a dozen. Compared to the prices paid in this country last Winter, it would almost seem that it might pay to bring eggs to New York from Cairo. Most of the Egyptian eggs go to England; last year 74,000,000, or nearly ninety per cent, were sent there. France had over 3,000,000, and the rest were divided among a number of countries. The eggs shipped from Egypt are generally smaller than those we are accustomed to; but when we consider the amount of food material contained in them, even these small eggs are very cheap when compared with prices in this country or in Europe.

UNUSUAL OCCUPATIONS

WHEN the thirteenth census is completed, that is when the last compilation has been made and each individual has been put in the proper class, it will be the most exhaustive classification ever made by the Census Bureau. For instance, while machinists will of course be placed under one general heading, each of them will be classified according to the particular work he is doing, and so with other trades and industries. Some of the sub-classes will contain but a single name. This will bring to light a number of queer ways in which some people are engaged in earning a livelihood. As far as the work has progressed, there is only one man classed as "snake merchant." This man has a snake ranch in Texas, and has for more than seven years made a business of handling snakes. During the year 1910 he sold over 150,000 rattlesnakes and blacksnakes, the prices ranging from twenty-five cents to two dollars each. They are sold to zoos, side shows of circuses, medical colleges and scientists.

Under the shoe industry one would hardly expect to find persons sub-classed judgers, fakers, plowers, sluggers, busters-out, cripple chasers and pancake makers, but there they are. Another man who will be all in a class by himself when the work is finished is a resident of Kansas City. His sole business is to bottle smoke of burning hickory logs. He claims that when this smoke is let loose in an airtight compartment where meat has been hung it will produce the same results upon the meat as though it had been smoked in an old-fashioned smoke house. Such titles as "whittler," in a straw hat factory; "tobles," a maker of stogies; "dock walloper," a longshoreman; "pouncer" in a hat-making establishment; "vibrator" in a clock factory; "tonger" in connection with oysters; "teaser" in a glass factory, are some of the other queer designations used by the Census Bureau.

Indeed, there are as many women as there are men who pursue odd ways of earning money, one class of which would be designated as "goats," were a common expression of the times used, for it is their business to be "discharged" from the department stores in which they are "employed" a number of times each day, or as often as necessity might demand. When a grouchy or haughty customer makes complaint of discourteous treatment, or what not, against a clerk, one of the "goats" is summoned to the office as the person in charge of that particular department. There she is given a good talking to before the angry customer and summarily dismissed, and the complainant goes away rejoicing.

Women policemen are becoming rather commonplace. We have a woman chief of police in Kansas; a town in Pennsylvania boasts a fair deputy sheriff, who is a college graduate, and Los Angeles was the first city to appoint a woman to its police force.

One woman in Pennsylvania earns her daily bread by raising Persian cats and selling them for from twenty-five to one hundred dollars each. She not infrequently makes large sales to wealthy cat fanciers. Still another woman in Maryland devotes her time to pigeon raising, claiming her income from the industry to be about $700 a year.

One of the most unique trades of the entire list, however, is that carried on by a man in Seattle. His business, and a profitable one, too, is to secure the mustaches from walrus killed in Bering Straits and sell them to the Chinese for toothpicks. These stout bristles are plucked from the nose of the walrus by Indians, tied into small bundles and sold by him on the Pacific Coast to agents who ship them to China, where they are in great demand. In an aged bull walrus the bristles are about a foot long and nearly as thick as a lead pencil. Besides being extremely tough, they can, when made into picks, be pushed between the teeth without injury to the enamel. Last year this dealer cleared something like a thousand dollars by his traffic in walrus whiskers.

A NEW GERMAN AEROLOGICAL STATION

GERMANY, which already possesses a far greater number of institutions for the exploration of the upper air than any other country, is to have a new one, at Rostock. That city has given the necessary land, on which the station will be installed by Capt. Hildebrandt, of Berlin, and Prof. Kümmell, of Rostock. Besides the usual observations with meteorological kites and balloons, measurements of atmospheric electricity and radioactivity will be made.

REBUILDING MESSINA

THE United States Consul at Catania, Italy, Mr. Arthur Garrels reports that up to July 1, 1911, there had been no evidence of any serious undertaking of actual work in connection with the rebuilding of the city of Messina, which was destroyed by the earthquake in December, 1908. The first two and one half years after the catastrophe were given over to the erection of temporary shelters, some six or seven permanent new buildings, and a desultory removal of the débris from the main streets.

In July, 1911, systematic work was begun under contracts let in sections by the city for the removal of the débris from the streets and building sites. Under the scheme in operation the city advanced the money, benefited property being assessed its proportioned share, with a tax payable in installments running through a period of years. The plan of reconstruction embodies a raise in the level and an extension of the harbor front. This provided an easily accessible dumping ground. In the removal of the débris, contractors' railways with reversible cars and the ordinary Sicilian carts are used. The rather steep incline of the city's surface toward the dumping ground makes the use of the former economical and efficacious. The loaded cars are run down under their own gravity, the empties in long strings at a time returned by horses.

On the site of what was the old city of Messina not a single new building had been erected or even begun by December 31, 1911. In the district immediately adjacent to the southern limits of the old city, which lies between the latter and the section that contains the frame temporary city, some 8 or 10 new buildings have been erected and a number of partially demolished structures remodeled, to conform with the new regulations as to height and mode of construction. Governmental, municipal, and the general business of shipping, etc., is still carried on under temporary and makeshift facilities.

WHEN TO PICK GRAPES

IN order to have the right flavor and to keep well, grapes must be ripened on the vines, wherein they differ from many other fruits. Instead of improving in quality after being picked, they soon lose their sweetness unless allowed to remain on the vines as long as possible in order to ensure complete ripeness. The amateur is often able to protect his grapes from early frost by covering the vines with a blanket or by piling cornstalks or pine boughs among them. The commercial grower may need to use smudges to save his crop.

Grapes drop off the stems after they have been picked if the atmosphere is too dry and mold when it is too moist, so that they are not easy to keep. Perhaps the best plan is to store them in a cool but dry place packed in single layers in dry cork waste, such as may be obtained at the fruit stores in the cities. Sheets of cotton will answer as a substitute for the cork. People with only a few grapes for home use will find this a simple way to prolong the season and to prevent the fruits spoiling before it is eaten.

DEPARTMENT STORES IN CHINA

THE American idea of retail department stores has appealed strongly to the progressive native element of the new Republic of China, and the American Consul-General at Hongkong reports the success of such establishments recently opened there, organized and operated by the Chinese themselves, in accordance with up-to-date commercial ideas.

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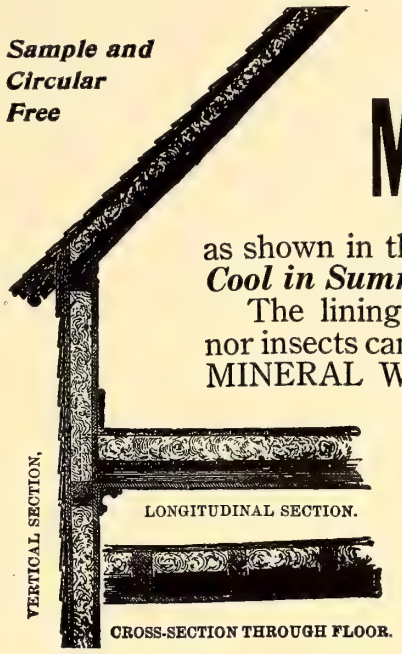

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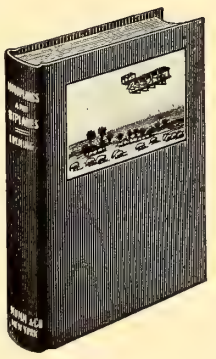

IN the many books that have already been written on aviation, this fascinating subject has been handled largely, either in a very "popular" and more or less incomplete manner, or in an atmosphere of mathematical theory that puzzles beginners, and is often of little value to aviators themselves. There is, consequently, a wide demand for a practical book on the subject—a book treating of the theory only on its direct relation to actual aeroplane design and completely setting forth and discussing the prevailing practices in the construction and operation of these machines. "Monoplanes and Biplanes" is a new and authoritative work that deals with the subject in precisely this manner, and is invaluable to anyone interested in aviation.

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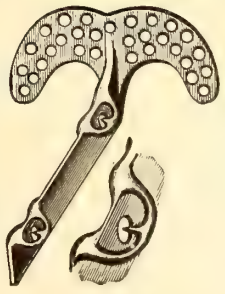

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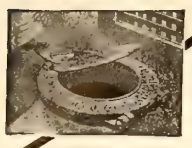

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THE CHEMISTRY OF TEA

THE average housewife may make good tea or vile, says a writer in *Harper's Weekly*, but in either case she knows nothing of the inner secrets of the process—that is to say, its chemistry. She may, led by some fortunate instinct, brew the tea only five minutes with perfectly satisfactory results, or she may even boil it a long time, securing a decoction that undoubtedly "takes hold" in its awful strength; she may talk about Orange Pekoe or Young Hyson and green tea and black, but there her knowledge ends.

Surely our forefathers or mothers have had knowledge of tea-making long enough for this same knowledge to be deep enough. Pepys, in his *Diary* of September 28, 1660, wrote: "I did send for a cup of tee, a China drink, of which I had never drank before." For a thousand years or so before that date the Chinese had selfishly enjoyed the beverage at home. However, the Orient is now more than willing to share that pleasure with us. The great tea-drinkers outside of Asia—Russians, English, and Americans—annually buy more than seven hundred million pounds from the Orient.

The tea-plant (*Thea sinensis*), a shrub from three to six feet high, thrives in China, Japan, India, and Java, though there are a few small groves in Florida and California. The leaves are picked three times a year—in April, May, and the middle of July. The first pickings are the best and tenderest and make the finest grade of tea. Of these first pickings we are most familiar with Pekoe and Gunpowder. "Flowery Pekoe" is, in fact, gathered so early that the leaves are still covered with down.

The black teas are Oolong, Bohea, Congou, Souchong, Caper-tea and Pekoe, and among the green teas are Hyson, Young Hyson, Hyson Skin, Twankay, Imperial and Gunpowder. The difference between the two colors is merely in the preparation, although of course that affects the analysis. Yet it is well known that tea from the same shrub can be made into either green or black.

Green teas are steamed thoroughly and then rolled and carefully fired. This heating kills the enzyme which would otherwise cause fermentation. Fermentation is desired in making black teas, so in the latter process the leaves are rolled in heaps and allowed to ferment before firing. The Japanese, who export most of their green tea for the American trade, steam the leaves in a tray over boiling water, then heat them on a tough paper membrane over an oven and at the same time stir with the hand. After this firing the tea is dried for some hours and sieved. In the warehouse it may be "faced" by heating in large bowls with the addition of certain pigments.

Our green teas come from China and Japan for the most part, while India's exports are largely of black teas sent to England, where they are very popular.

These Indian and Ceylon teas are much stronger than the China product, and the English consider it economical to buy the stronger grade.

The tea extract consists essentially of a solution of a bitter alkaloid called caffeine, an astringent substance called tannin or tannic acid, and an essential oil giving flavor to the brew. The caffeine in the dry tea leaves amounts to two or three per cent., while the tannin may vary from four to ten per cent. Caffine alone tastes bitter, and tannin alone is unpleasantly astringent, yet a well-made tea has neither characteristic, only a bland, smooth quality.

Tannin and caffeine, say these scientists, unite in the proportion of three to one to form caffeine tannate, a compound of pleasant taste and possibly very different physiological action from either constituent. When the infusion contains more than enough tannin to unite with caffeine—that is, more than three times as much tannin as caffeine—the astringent taste becomes evident. On the other hand, if there is more than one third as much caffeine as tannin, the drink becomes slightly bitter.

Their conclusion, then, is that an ideal infusion contains just three times as much tannin as caffeine—exactly the right proportion to form caffeine tannate. If this balance cannot be found the second choice is a tea containing a slight excess of caffeine. Such are the China teas. This conception throws light on the making of "blends." If a tea a little too rich in tannin be mixed with one a little too rich in caffeine a perfect tea may result yielding an infusion with the proportion of tannin to caffeine as three to one. The professional blenders themselves do not know why they secure their results and are guided only by the sense of taste.

TYPEWRITING MACHINES IN CHINA

IMPORTERS of American typewriting machines report that recent changes in Chinese political and commercial organizations are increasing their sales. There has been a steady increase in the use of typewriters among progressive Chinese business houses for some time and the movement toward modern things generally following the revolution is stimulating the adoption of all such modern business conveniences. Foreign firms in the open ports are also increasing the use of typewriters. Until recently many of them still corresponded in handwriting and it has been difficult to break some of the old and conservative firms away from such methods. However, about 500 typewriters are now in use among such firms in Hongkong at present and at least 450 of these machines are American. Purely Chinese firms are now using perhaps fifty machines and more are being sold daily. Business college instruction in various Hongkong schools is producing a large and increasing force of stenographers among young Chinese and Eurasian people, so that the possible use of typewriters to advantage is greatly increasing.

It is difficult to ascertain the exact importation of typewriters into China. Imports of such machines in the national customs returns are included in other general items. Details of imports of such machines in various ports show importations of typewriters to the value of $48,112 gold in 1910, of which about 60 per cent. go to Shanghai, but these figures are incomplete and the valuation is more or less empirical. It is probable that imports of typewriters into China and Hongkong now reach about $100,000 annually and are likely to show a notable increase.

CHICORY

CHICORY, which is mixed extensively with coffee in Russia, is scarcely imported, as the home-grown chicory from the central parts of the Empire furnishes ample supply. Consul General Snodgrass states that the seventeen chicory factories are principally in Poland and the Baltic Provinces, where the people use coffee to a greater extent than Russians in general, who are tea drinkers.

THE EDITOR'S NOTEBOOK

AMERICAN HOMES AND GARDENS FOR SEPTEMBER

AN article of unusual interest, touching upon a subject in aeronautics that has not heretofore received much attention, will be Mr. Harold Donaldson Eberlein's "The Aeroplane as a Factor in Civic Improvement," which, finely illustrated, will be the opening article in the September number of AMERICAN HOMES AND GARDENS. Mr. Eberlein is one of the best writers on architectural subjects of the day, and while this article for the September number is mainly a forecast of future possibilities, in connection with the utility of air-craft in the public service of civic planning, it is full of interest and good sense and readers will turn to it and find therein something wherewith to refresh themselves.

MUCH has appeared in periodical literature on the subject of Japanese gardens from time to time, but Mr. Harold J. Shepstone's article in the forthcoming number on "The Real Japanese Garden," is one which no garden lover can afford to miss reading; inasmuch as it clearly defines the real Japanese garden and points out the fact that it is a thing apart, so far as a Japanese would consider the matter, from the pseudo, so-called Japanese gardens that have come to be numerous within the last three or four years.

A DELIGHTFUL mountain-side home designed and occupied by a woman architect will be described by Miss Ida J. Burgess in this September number, fully illustrated with reproductions of photographs by the author. This house is somewhat Japanesque in the motif of its exterior design, and is one of the most attractive homes in the Catskills. Another beautiful country home will be illustrated and described in the September number, accompanied by floor plans.

THE September center-page feature will be devoted to the subject of Evergreens. Many handsome types suitable for the adornment of the home grounds will be shown. Another horticultural article of value to the home gardenmaker will be one upon "The Peony," giving much information as to when, what and where to plant these beautiful perennials, which, after years of neglect, are again coming into their own, winning from us to-day, as they do, the admiration bestowed upon them in the days of our great-grandmothers. Few perennials, if any, are so hardy, require so little care, or bloom so gorgeously and profusely. Aside from this, few perennials present such a luxuriant wealth of rich green foliage, and the Peony, in consequence, is unsurpassed as a plant for lawns and borders and garden masses.

THE article by Mr. Robert H. Van Court on a garden house of originality in design will suggest what can be done in reviving the French idea of a little house for rest and recreation in one's garden. The floor plan and photographic reproductions adequately illustrate this article.

GOLD Fish and their care is the subject of a monograph-in-little by Miss Ida D. Bennett and readers of AMERICAN HOMES AND GARDENS will find this feature one of absorbing interest. We have followed the Japanese in our desire to add loveliness to every nook and corner of our homes, and like the Japanese, we have come to understand the fascination of watching gold fish playing in fountains, pools, and within the confines of the indoor aquarium. Everything one needs to know in the beginning about raising gold fish will be found in Miss Bennett's article.

THE various departments of AMERICAN HOMES AND GARDENS, "Within the House," "Around the Garden," and "Helps to the Housewife," will, as usual, be filled with practical suggestion. The readers of the magazine continue to avail themselves of the Editor's invitation to feel free to ask information on various subjects connected with home-building, connected both with the house and with garden-making, and the publishers fully appreciate the many letters constantly received from readers who are subscribers and readers who intend to give expressions of their interest in the magazine and their courteous acknowledgments of its service to them.

SHORT MEASURE IN FOOD-PRODUCT CANS

BY a recent decision of the Board of Food and Drug Inspection, reported in the *U. S. Daily Consular and Trade Reports,* the practice indulged in by a small minority of packers of only partly filling food-product cans, is declared to be adulteration. The statement of the net weight of canned-food containers is now required by eight States, and a table of minimum net weights has been adopted by the executive committee of the National Canners' Association. In view of the decision of the Board of Food Inspection it has now been suggested that the cans be hereafter filled by measure instead of by weight. The text of the decision is as follows: "The can in canned food products serves not only as a container but also as an index of the quantity of food therein. It should be as full of food as is practicable for packing and processing without injuring the quality or appearance of the contents. Some food products may be canned without the addition of any other substances whatsoever—for example, tomatoes. The addition of water in such instances is deemed adulteration. Other foods may require the addition of water, brine, sugar, or sirup, either to combine with the food for its proper preparation or for the purpose of sterilization—for instance, peas. In this case the can should be packed as full as practicable with the peas and should contain only sufficient liquor to fill the interstices and cover the product. Canned foods, therefore, will be deemed to be adulterated if they are found to contain water, brine, sirup, sauce, or similar substances in excess of the amount necessary for their proper preparation and sterilization. It has come to the notice of the department that pulp prepared from trimmings, cores, and other waste material is sometimes added to canned tomatoes. It is the opinion of the board that pulp is not a normal ingredient of canned tomatoes, and such addition is therefore adulteration."

THE form for the article, "An Old Colonial Farmhouse That Became a Modern Home," appearing on page 284, went to press crediting the authorship of this article to Beatrice C. Wilcox. This article was written by Mrs. Sarah Whitlock Jones, and we regret the oversight which should have occasioned this mistake.

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CARAWAY SEED IN HOLLAND

THE American Consul in Amsterdam furnishes interesting statistics of the Caraway seed industry of Holland. Groningen, in the northeast corner, produces more than any other Province, next being North Holland, in which Amsterdam is situated. In these two Provinces more than half the Caraway-plant acreage is found. In the whole country, in 1909, the number of acres devoted to Caraway growing was 17,579; in 1910, 19,010; in 1911, 20,337.

The average yield per hectare (2.471 acres) was 24.1 bales of 50 kilos (110.23 pounds) each in 1909; 23.3 bales in 1910, and 27.3 bales in 1911. The large yield in 1911 is particularly noteworthy and interesting because that was a year of remarkable drought.

The total yield of Caraway seed in 1909 in this country was roundly 18,865,000 pounds; in 1910, 19,800,000 pounds; and in 1911, 24,700,000 pounds. The declared value of the exports of Caraway seed to the United States from this district in 1909 was $115,611; in 1910, $82,247; and in 1911, $92,663. [The statistics of American imports of Caraway and other seeds were given in Daily Consular and Trade Reports for May 13, 1912.]

Caraway seed is used for flavoring, and also, perhaps less extensively, as a carminative. It is employed by confectioners, distillers and perfumers in the preparation of liquors, cakes, sweetmeats, scented soaps, etc. It depends for its aromatic properties on a volatile oil, which is obtained by bruising the seeds and distilling them in water.

THE HORSE IN HISTORY

THE early poets, says a writer in *Our Dumb Animals*, always connected beauty, majesty and even sublimity with their idea of the noble horse, and it was the companion of kings and of princes and the terrible yet graceful accompaniment of war. In Deuteronomy, Moses expressly forbids the Israelites, in the event of electing from among themselves a king, to allow him to "multiply to himself horses," and thereby foster a lust for dominion and belligerent propensities.

Egypt was undoubtedly in early times the great breeding place of horses. At Jacob's funeral in Judea there came forth from Egypt "chariots and horsemen, a very great company." The Hebrews were pursued into the Red Sea by Egyptian horsemen, when horses and riders were overwhelmed. Several centuries later, Solomon obtained all his fine horses from Egypt, and this concurs with the narratives of the Greek writers.

According to them, Sesostris was the first professor of the art of horsemanship and taught his countrymen how to tame and ride the noble animal. In the time of Solomon the price of a horse from Egypt averaged 150 shekels which, according to computation, would be about $52.50, a large sum in those days. In Xenophon's time, six hundred years later than Solomon, the price of a good charger was about fifty daaks, or $137.50, at least that is the recorded price paid for Thracian, by Xenophon himself for the steed on which he rode during his celebrated retreat. After the Egyptians, the Arabs next became breeders of celebrated horses. These people developed a type so beautiful, intelligent and faithful that there are many who believe that the horse reached his crowning glory under his Arabian masters.

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MUNN & CO., Inc.
Publishers
361 Broadway, New York

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Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

Copyright 1912 by Munn & Co., Inc. Registered in United States Patent Office. Entered as second-class matter June 15, 1905, at the Post Office at New York, N. Y., under the Act of Congress of March 3, 1879. The Editor will be pleased to consider all contributions, but "American Homes and Gardens" will not hold itself responsible for manuscripts and photographs submitted

Photograph by T. C. Turner

Nearly every old house of the Colonial period has a doorway whose main features, simple though they may be, are usually well worth preserving

AMERICAN HOMES AND GARDENS

Volume IX — August, 1912 — Number 8

The Remodeled House

By Gardner Teall

Photographs by T. C. Turner

THE making of a house is one of the occupations of man that is as joyful in its pursuit as it is in its ancestry. Fortunately for the full measure of happiness, the human race is compounded by a multitude of temperaments. There is the man and the woman to whom the things of yesterday appeal by reason of their association with interesting events in history, even though history be local, and again we find the man and the woman to whom to-morrow seems to be the vital objective point for happy endeavor. We will expect to find them among home-makers the world over, those who linger fondly over the memories of the old home, to whom such memories carry delightful suggestions of connection with every old house they happen to come upon, and those others whose eagerness to construct, specializes upon the things that are new—new foundations, new walls, new roofs, new furnishings, and whose whole lives, in a sense may be characterized by their pleasure in the whole aspect of newness and of novelty. Of course, it is true, that in making a home one

This picturesque old stone farmhouse required very little external remodeling to make its interior light and roomy

The remodeling here has been skilfully carried out, the details of the shutters and entry lending pleasing contrast in the design

is not always able to choose either location or materials; sometimes the distressing situation occurs where the man and the woman who long for a new house must live in an old one, and of the uncongenial atmosphere of perpetual newness forced upon the man and the woman who wish they might surround themselves with the old things dear to their hearts, things for which they yearn through the traditions of their instinct. So it comes to pass that between the extremes of those home-makers who may do as they please—make new houses for their homes or make their homes in old houses, we have the whole range of home-makers to whom the problem of the house-to-be seems to shape itself into a very individual one, when the vast variety of individual circumstances is taken into account. I do not think our civilization permits us to dictate to the peace-abiding citizen what he should do in the matter of choosing a home, beyond giving him a few hints, when one happens to be called upon to give them, of pitfalls to be avoided, if there are such that prove to be public and general menaces that may come in his way. Instead, to be most helpful to the American home-maker it is the wiser course to place before him the materials that go to make up the pros and cons of the question of choosing a home, permitting those to whose notice they come to decide for themselves, whether or not this idea or that one may prove helpful to their needs. Thus it happens that one suggestion appeals to one man or to one woman, and another one to another. However, it would be difficult to find anyone to whom the subject of the remodeled house held no interest, fraught, as it is with so many problems that must lie close to the hearts of every home-maker, regardless of the measure or the quality of sentiment he may possess.

View of the remodeled house from the lawn front

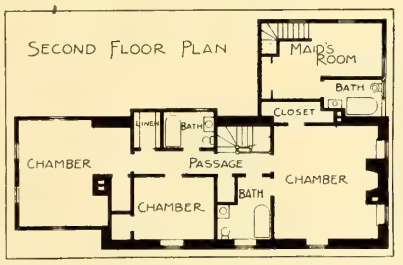
There prevails an impression that remodeling a house is a much cheaper undertaking than that of building one, but it all depends upon the house. It would hardly be safe to suggest remodeling an old house as an expedient for economy. If the structure were of goodly extent and required much interior and exterior alteration, it would probably be found cheaper to rear an entirely new dwelling from foundation to roof. However, if as very often it happens, one comes across an old house suited to the taste and re-

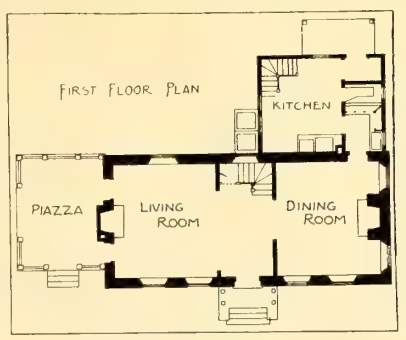
The stairway

The dining-room

quirements of the discoverers, a house they would find wholly livable with but few architectural changes, then added to the interest always incident to planning ingenious changes there would be the incentive of economy as against the expenditure requisite for an entirely new dwelling house.

Old houses that have knit themselves to their sites through the years of their existence seem to transmit, as an atmospheric heritage, a charm to their remodeled existences. That seems to be true of the old stone Colonial farmhouse here illustrated. This was built in 1786, and was reconstructed by Mr. A. F. Norris, architect, New York. Even in its original state, as will be seen in the reproduction of a photograph in Mr. Norris's possession, of the house before remodeling, which accompanies this article, the quaint homestead was picturesque and attractive and could not fail to awaken an interest as offering to the architect and home-builder alike, an excellent opportunity to display skill and good taste in adapting the old structure to meet all of the necessary modern requirements.





Floor plans of the house

A study of the floor plans discloses the original exterior stone walls, as one finds them indicated by the heavier lines of the diagrams. Nearly all old houses of the type such as this was, followed the same general plan of a parallegram divided through the center by a square, narrow entry-hall, flanked on either side by large, square rooms, or by a square room on one side, and two rooms half the size on the other. In remodeling this house, the room to the right has been retained and has become the dining-room, the house having been extended by a rear wing to supply the adjoining kitchen, which is reached through a well-placed pantry. The living-room and the hallway have been thrown together and as they open upon the dining-room through a wide arch, a sense of spaciousness is given to the whole first floor that is one of its pleasantest features, and it has also made this floor light and exceedingly cheery.

From the end of the living-room two French windows either side of the large old-fashioned fireplace open upon a broad porch, partly enclosed by lattice work and forming a sort of out-door living-room. This porch is roofed by a projection of the second story, which thus makes possible the large bed-chamber shown in the left on the second floor plan. Originally, the house had all-lighted upper chambers, but the addition of generous dormer windows has turned the remodeled upper chambers into bright and habitable bedrooms, as will be seen in the accompanying illustration, and it will also be seen, by studying the reproduction of the rear of the house, that the rear slope roof to the right of the kitchen wing has been raised and the wall run up by a frame addition. Of course, one wishes all the first story walls might have been of stone, nevertheless the frame wing appears in harmonious contrast when

The living-room

One of the bedrooms

seen in its actuality, which unfortunately, it is not possible for a photograph to make so evident.

The fireplace in the dining-room facing the one in the living-room at the opposite end of the house is one of the best features of the house. In Winter time the glowing logs in both rooms seem to vie, one with the other, in creating an atmosphere of cheeriness, at which time there seems, more than ever, a lack of a formal dividing-line in the arrangement of these two rooms that occupy the ground floor area of the original house. The fenestration has been successfully maintained in the old portion of the dwelling, and well thought out in the new, both as regards interior and exterior effect. In the various illustrations accompanying this article one will notice how valuable an accessory to its exterior appearance is the old tree which stands near the entrance door. The owners have wisely chosen to let it remain and the branches form an interesting attribute to the house in its Winter aspect.

View of the Warren house showing frame wing and latticed porch

This suggests the value of appropriate planting when planning the remodeling of an old house. It is remarkable how a few shrubs, properly placed, will transform even the commonplaceness of merely bare architecture into an entirely satisfactory state. In deliberating over the choice of an old house and the making it into a new one, this subject of planting for effect should be studied in order to anticipate, in the mind's eye, the vision of the remodeled house in a setting of greenery suited to its traditions. If the old house needs but few changes and boasts of more than fifty years of existence, there will be Lilacs, Rambling Red Roses, Syringos, Barberry Bushes and the like that will belong to it by right of association and tradition. Then there will be Hawthorns and other flowering trees to make Springtime in such a home more joyous and reminiscent of the old days when the reconstructed house helped, perhaps, to make history. I know a little village in Massachusetts where I have passed many happy Summers. Few strangers have come its way, and it still remains unspoilt and natural without appearing primative. As the years bring within its precincts the innovations of progress and local prosperity keeps apace with the signs of the times, the villagers, and the happy outsiders, who have there sought to make their Summer homes,

(*Continued on page 297*)

In order to meet the space requirements of the owners, a frame extension was added to the rear of the original structure and also the upper story wing shown in the right of the above illustration

This shows how good taste and ingenuity, applied to problems of remodeling, can turn an ugly old structure into a thoroughly attractive dwelling

A Barn That Became a House

By Beatrice C. Wilcox
Photographs by Alice Boughton

MANY of the large, well-built barns of a past generation have been transformed into Summer dwellings, by people who love the space and freedom of a large, central living-room and the simplified housekeeping which is a great deal easier in the old barn dimensions than in the conventional house.

On one of the pleasantest of the Long Island country roads, there is to be seen one of these made-over barns, which now presents the appearance of a quaint, gray-shingled house with a green roof, and a large brick chimney in the middle. There are many diamond-paned windows set along the sides, and a little porch at the side door with a balcony above it.

The great living-room is about twenty-five by thirty-five feet in size, and in the central space rises to the full height of the barn. The two haylofts project over either end of this room and form a second story in which are four bedrooms. The huge brick chimney is between this large room and the former stable, which has now become the dining-room and kitchen combined. The open fire places add not a little to the homelike aspect of the place.

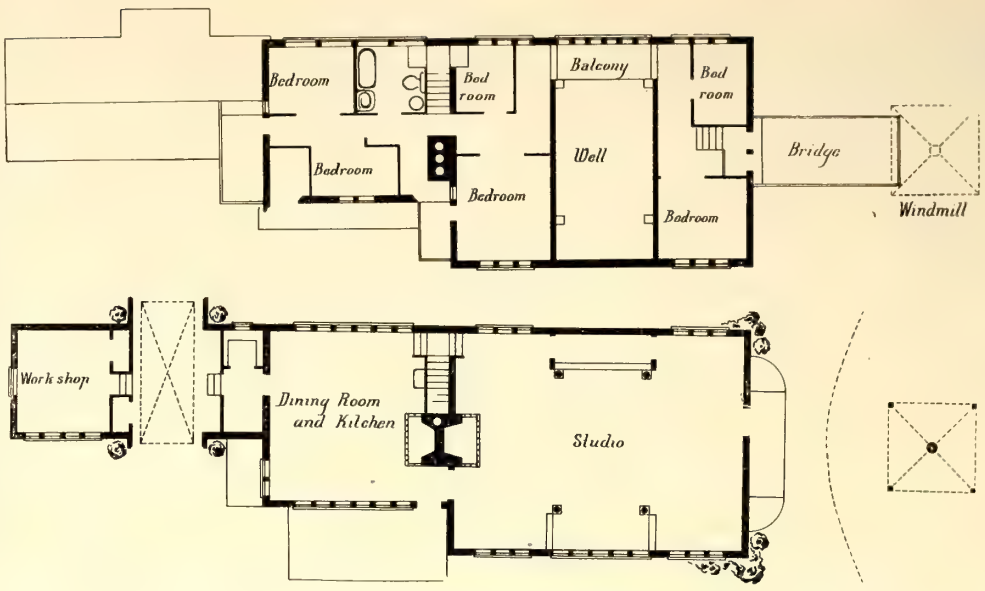
The house was originally an old Long Island barn

Above the kitchen and dining-room there is a fifth bedroom and a modern bathroom with hot water attachments from the range in the kitchen. The plumbing and heating arrangements are so good that the barn may be used for week-end parties in the Winter, and the remodeling has been done in such a way that a part of the space can be shut off and made snug for Winter quarters.

The family of five, who formerly lived in the old house on the place, have lived for several years in their barn and have found it very easy to do their own work, with the help of one man, who comes by the day. This solved the problem of servants, which is always a difficult one in the country. The three daughters were artistic and practical at the same time, and when they began to plan

the remodeled barn there was ample scope for their talents in both directions.

The scheme did not develop all at once. The family had spent their Summers for many years in the old place, and the barn had always been the favorite spot for play and work, because there was more space, more sunlight and more freedom there. The girls used it for sewing, or painting, or practicing. It was fine for picnics and amateur theatricals, and it meant much more to them than just a barn, long before they thought of making their everyday home in its old gray walls.



Floor plans of the house

To be sure the horse and the cow and the chickens lived in various parts of the old barn in those days, and the lofts were filled with hay, but still there were large possibilities in the space that was left. There is a windmill at one end which pumps the water for both house and barn. From this windmill to the barn there is a curious little bridge at about the height of the eaves. This bridge has its touch of romance, for it was built by the girls' grandfather, who ran away to sea in his youth and then came home and became an architect. The bridge is a sort of lookout, and from there one can see the ocean and the white sails of fishing boats. Here the grandfather could catch glimpses of the sea he had once loved so well. The little bridge now serves a double purpose, as a portico over the front entrance of the barn-dwelling, where it makes a shelter from the rain.

The various interesting and artistic parts of this Summer home were collected at different times. When the family decided to remodel the barn and live in it, they found they had many useful and ornamental objects which they had gathered by a natural process of accumulation, and which were stored in the hay of the barn itself.

Among these treasures were the diamond-paned windows which came from an old church that was being remodeled. Since the windows were handmade, each one was found to be of a slightly different size, much to the despair of the carpenter who set them in the barn.

From another old church, which was torn down, came the four wooden columns, hand-carved and colored, which have been used in the living-room. An old, oaken church settle came from a second-hand shop in New York city.

The sandstone font, which makes such a delightful fountain and basin for the birds, came from another old, dismantled church. This is at the front of the barn under the windmill. Valsora Burdock is the child who dabbles her hands in the fountain. Like all the neighborhood children she finds many strange and fascinating things in this transformed barn. The ornamental iron work, which is at the back of the basin and through which the faucet comes, concealing the lead pipe, is one of the iron grills or guards

One of the ends of the spacious living-room

The drinking fountain by the windmill

The old barn before remodeling

The house after the transformation

which are often seen outside the windows of old-fashioned houses, where the windows come to the floor and there is danger of people falling out. This idea was picked up in Paris, where discarded iron firebacks are used behind the fountains in the courtyards to keep the water from splashing. The faucets come through the iron work in the same way.

Many other things were at hand which had been preserved because they were beautiful or useful, for the family had had a vague idea for a long time that they might sometime make over this barn, and they had plenty of space in which to keep their things.

When it was finally decided to try the experiment of simplified living, a radical move was made, much to the disapproval of country neighbors, who saw no advantage in living in a barn. All the animals and poultry on the place were disposed of. Country eggs and country milk could be purchased, and a horse could be hired. Not only did the family need the living quarters of the beasts, but with their removal a vast amount of work and worry was eliminated, and if the whole family wished to go away for a few days there were no living things to be provided for. This was the first step.

The chicken-house has now become a workshop, the horse's paddock a vegetable garden, the cow-shed a garage, the stable a dining-room and kitchen, and the haylofts are bedrooms.

After the animals had been turned out of their apartments, the barn was thoroughly cleaned, the great brick chimney was built in, new floors were put down, new doors were cut, the diamond-paned windows were set in, and the whole barn was covered with shingles under which were a layer of builders' paper and a layer of tar paper. Under the great pointed roof, in the main room, the shingles, which are green, show through between the old, brown rafters, making a pleasing effect of color. These shingles are of cypress wood, from the cypress swamps of Florida, and are made by hand by the negroes, in their leisure time. They are considered the best kind of shingles, but the supply is uncertain, because the negroes only make them when they have nothing else to do.

The rooms are panelled on the inside with a series of doors set in upside down, so that the larger panelling comes at the bottom and gives a good wainscot effect. A carload of unstained pine doors was sent for, and the girls stained them themselves with a preparation of walnut shells boiled down in water. This is a very good stain and can be made either light or dark.

Stairway corner of the living-room

The first step in the problem of simplified living having been the disposal of the animals, the second was the reduction of the number of rooms to be cared for. The house had twelve rooms and the barn comfortably accommodates the same family in seven.

The five bedrooms are simply but daintily furnished. The walls are covered with terra cotta builder's paper and the partitions are formed of the stained, pine doors. There is a stairway from the dining-room to the bedrooms above and another little stairway comes down into the living-room. The two stairways are connected by a small landing, so that the bedrooms may be entered from either down-stairs room.

The third, and perhaps the most important part of the plan, was to simplify the

(*Continued on page 295*)

There is nothing that makes a porch so delightfully home-like as well-chosen woven furniture, whether it is of willow or of rattan

Woven Furniture

By Harry Martin Yeomans
Photographs by Jessie Tarbox Beals and T. C. Turner

UNTIL a few years ago the only woven furniture of American manufacture which could be found in the shops was so over-elaborate in detail and of such poor design that it was rejected by persons of discriminating taste and so gradually fell into well-merited disuse.

But a revival of interest in all matters pertaining to weaving, basketry and the handicrafts has brought woven furniture to the fore again, and much time and thought has been expended on designing woven furniture of willow and rattan. The shapes are simple, so that the material used in their construction adapts itself readily to the honest, straightforward designs which have redeemed this style of furniture, and have made it worthy of our consideration when furnishing the home.

The Chinese rattan furniture, known as "Canton Furniture," has been imported steadily by the shops that deal in products from the Orient. It consists mostly of chairs, settees and tabourets of a brown-toned rattan and is known chiefly by the "Canton" or "hour-glass" chair, which is one of those useful pieces of furniture which possesses the virtue of looking well no matter where it is placed. The discerning homemaker has long appreciated its adaptability and as an extra chair for living-room, informal sitting-room or studio, it cannot be excelled. This Chinese furniture is exceedingly handsome for the porch or terrace and the dampness has no injurious effects.

A comfortable willow armchair

Furniture of closely-woven rattan, after designs which reflect the modern Viennese art movement, is substantial and dignified and its brown stained surface suggests its being used in a living-room with a brown and yellow color scheme.

It is willow furniture of American make, however, upon which the homemaker must depend when furnishing, as it is especially appropriate for the little country house and there is no limit to its possibilities. From being used as an "occasional" or easy chair, this comfortable and satisfying furniture has gradually grown in scope and now

An out-door porch dining-room with willow furniture

comes in such a variety of shapes, that almost any room in a house can be appropriately and artistically furnished in willow.

The shops show not only chairs, tables intended for various uses, desks and the regulation pieces of furniture which one would expect to find in this material, but there are also electric lamps, with shades, candlesticks, wood-baskets to hold fuel for the open fire, swings for the porch, Waterford thrush cages, which look as though they should be hanging in the windows of thatched English cottages, tea-trays, tea-carts and beds. The last are not entirely of willow, however, being constructed of mahogany or ash with woven willow panels set in the head and footboards.

Among the interesting and convenient things which are being shown are the tea-tables, which can be easily moved about owing to their light weight. One had a shelf arrangement about eighteen inches below the top, divided into three sections, which gave additional space for cups and refreshments when serving tea. Other tea-tables, both round and rectangular in shape, had trays fitted into their tops so that the tray could not slide off when the table was carried about. These tray-tops were of gaily colored cretonne under glass, with rims and handles of willow, the glass making a flat, even surface, upon which to place the tea things.

The tea-cart is a two-story, rectangular tea-table on wheels, with a removable tray-top, and facilitates the serving of tea on a terrace or a piazza, as the cart can be wheeled from place to place.

The Brook Club Chair is a homelike and comely-looking chair, having a padded seat, back and arms. It suggests rest and repose in every line, and it and kindred shapes are ideal for a library or a living-room.

A living porch fitted with willow furniture

A willow lamp, electric

Another chair has pockets on the arms to hold books and magazines, but when used as a sewing-chair these pockets are lined so as to prevent spools and other small articles from dropping through.

Swinging-seats or porch-swings, long enough to hold three or four persons, are attractive to those who have succumbed to the habit of being swung lazily to and fro. As they are supported by stands which rest on the ground, these swing-

A woven lamp, oil

ing-seats can be used in any part of the house or the home grounds.

The Fire Island Light electric lamp has a little door in the base, making a little closet where the electric cord and plug can be tucked away, when the lamp is not connected for use. The shade is lined with Priscilla silk of any desired shade, but cream or yellow makes the best lining and gives an agreeable light.

One objection to willow tables and desks has been that they were not practical owing to the weaving of the willow, resulting in an uneven top. Tables and desks are now being made with wooden tops, which overcomes this objectionable feature.

The Japanese baskets of split bamboo are imported in an endless variety of shapes and sizes and naturally suggest themselves when one is discussing woven furniture. The low, flat baskets—you might almost call them trays—are just the thing for holding fruit in the country dining-room, while others have metal linings and make attractive flower-holders and ferneries. In the illustration may be seen a charming little Japanese basket which has been transformed into a beautiful lamp, and a metal-lined umbrella stand of heavy, split bamboo is also shown, which would fit admirably into a hallway having a brown stained wood trim.

Willow furniture can be used in its natural or white state on porches or in outdoor living-rooms, where it will gradually weather and lose its newness, but it is perferable to hurry the process by having it treated to a coat of good brown stain, which will tone down the willow so as to produce the desired effectiveness.

In the little country house where a consistent color scheme is desirable, the willow should be stained, painted or enameled to blend harmoniously with the dominant color in the room; enameled willow being very pleasing in a dainty bedroom.

These woven chairs, imported from Asia, are cheap and wear well

Willow furniture and the flower-bedecked cretonnes and chintzes seem by right to have been made for each other and enable one to transform any room into a veritable flower garden. With plain walls, flowered chintz hangings at the windows, cushions of the same material, and the furniture toned to harmonize, one will have a bright, cheerful and refreshing room.

The painting of the furniture is so cleverly done that it is an art in itself. Two or more tones of the same color are usually employed. The paint is thinned and the furniture treated to two coats of the lighter color. When this is dry a coat of the darker color is brushed over, and when nearly dry it is wiped off with a cloth. This allows the lighter color to show through while the darker color forms deep shadows in the crevices. In this manner one gets interesting highlights, a result which is much more beautiful than when only one color is used. Paint that has a dull, flat surface when dry is best for this purpose.

Sometimes two different colors are used on the same piece of furniture. This effect was noticed in some willow furniture which was to be used in conjunction with an English cretonne having peacocks on a dark écru background. The walls of the room were to be covered with an écru oatmeal paper, ivory-white woodwork, the peacock cretonne to be hung at the windows and used for chair cushions, while the willow chairs and settee had been painted, first, a dark green and then a wonderful shade of peacock blue, which had been wiped off when partly dry and allowed the green underneath to show through. By car-

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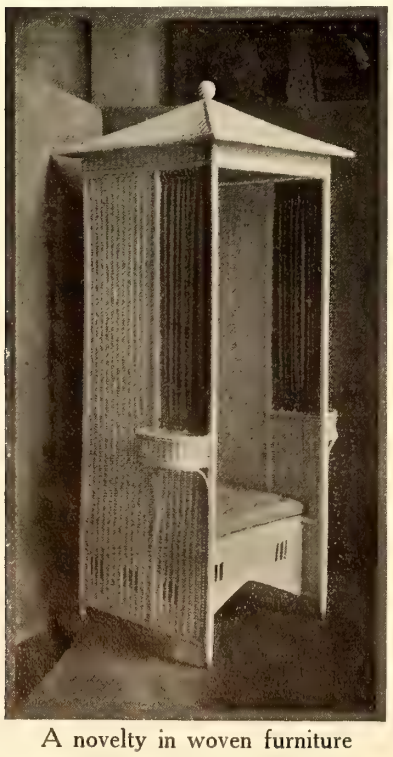


A novelty in woven furniture

Two examples of attractive woven furniture

A plain woven umbrella-stand

A beautiful country home on the shores of Lake George. The house was evolved by remodeling an abandoned old mill

A Country House from an Old Mill

By Robert H. Van Court

A WHOLE wealth of possibilities lie hidden in the remodeling of any old and antiquated building. This interest is increased, perhaps, when the old structure has completed its period of usefulness in the service for which it was built and is to be adapted to a new and altogether different purpose, and the task becomes fascinating when a building not originally intended as a dwelling is to be converted into a country home with all the interest which skillful designing and careful planning can create. All this is true of a problem which has recently been worked out not far from New York city.

Upon the shores of Lake George stood an old mill which had been abandoned. Placed in extensive grounds, in the midst of beautiful country, and not far from the water of which it commanded an inspiring view, and surrounded by a forest of old pines, it offered a wonderful opportunity for developing the beauty of a large country home from the ruin and chaos of an old manufacturing building. The successful result which has been attained is the outcome of careful study and sympathetic treatment at the hands of Messrs. Hewitt & Bottomley, architects, of New York. The old building was of wood upon a heavy foundation of stone and brick upon which an even earlier structure had been reared, and the old mill wheel was in place at one side where a swift running stream, climbing over rocks and between boulders, had been dammed. The walls were leaning but their builders had used timbers which were strong and durable and a general "truing up" of vertical proportions

A view of the old mill as it originally appeared

A view of the billiard-room

One end of the living-room

eventually restored the framework to its original strength.

In the wonderfully interesting and beautiful country house which now looks out upon the lake it is difficult to recognize the outlines of the old mill; the outlines are there but careful remodeling has done much to correct and beautify them. The result of the alterations is a house of rough cast upon metal lathing which was applied directly to the strong frame of the original building. The old stone work has been retained and material from the same quarries, laid in the same manner, has been used in the chimneys and elsewhere where additional stone work was required, and so carefully has this been done that it is impossible to tell where the old ends and the new begins, which is, after all, one of the hardest tests of really successful restorations. The mill as the architect found it presented many serious difficulties, the chief being that it was exceedingly lofty for the amount of ground which it covered, for upon one side it was five stories high. This produced the effect of its rising abruptly into the air, and reducing this apparent height without decreasing the amount of space within the building has been cleverly done by laying all possible emphasis upon the horizontal lines of the house and its immediate surroundings and by retaining as far as possible the unbroken skyline and broad expanse of roof.

The main entrance to this little country estate is marked by a low wall and simple piers of native stone, and a tiny lodge which is being rapidly covered with ivy is placed near the gate. This little building is garage and chauffeur's rooms as well as entrance lodge, and its being arranged to serve a practical as well as a decorative purpose is part of the careful planning which has made these alterations so interesting. From the entrance a broad drive winds through the grounds, crossing the mill stream upon a bridge of the same stone of which the old foundations of the mill were built, and terminating in a sweeping circle before the entrance. The service-yard and steamer dock are reached through another entrance and from the house walks lead to a tennis court, a vegetable garden, a sandy beach and a cove where the brook flows into the lake, and the small inlet which is outlined by a low wall of stone and forms a harbor for rowboats and motor launches of light draft.

The house is planned with two fronts, one facing the approach and another overlooking the waters of the lake. Near the service entrance is a small building used for storing ice and connected with the house by a low wall in which panels of lattice work are inserted. This forms a drying-yard and unifies what would otherwise be a group of several buildings by creating a strong horizontal dimension. This purpose is further served by the use of wooden panels, trellises, arches and screens which are used elsewhere, by the retaining wall of stone near the entrance to the house and by the low wall which encloses a grass terrace at the point where the height of the house is the greatest. At this same side of the house there is built up a paved terrace or pergola upon high stone walls. A toolroom occupies the space below, and the heavy timbers above, upon which vines are being trained, accentuate the general "lowering" effect, which is also helped by the use of window boxes and by the placing of windows in broad horizontal groups.

The main entrance to the house is into a small square hall divided from the hall proper by fluted columns and pilasters. To the left of this little hall is a small reception-room furnished very simply with cane furniture, wall and floor coverings of plain gray, and curtains and chair cushions of flowered taffeta; upon the right of the hall is the stairway to the floors above. Tall white columns open into the long hall which extends through the house and opens at the far

The pergola is set upon the high stone walls of the old structure

A glimpse of the lake is had from the hall

Hall, looking toward the entrance doorway

end upon a broad flagged terrace which overlooks the estate, the blue waters of the lake and the mountains, covered with vegetation, which loom up beyond. At one side of this long dividing-hall, the open library and the living-room are placed so that these rooms, which are those most lived in, may secure the most attractive outlook. Upon the opposite side is the dining-room and a small service-hall connects the main hall and the dining-room with kitchen, pantry and other servants' quarters beyond. The feeling created in this beautiful house is that of being out-of-doors. The long hall of the main floor is closed at the end by French windows which seem to bring the water and the hills very near, and large windows everywhere show nature close at hand. This feeling of openness is strengthened, perhaps, by the broad doorways and the character of the furnishings, for everywhere are white woodwork and coverings for walls and floors of soft grays and greens with foliage effects, all of which form a background for mahogany in furniture, stair-rails and frames in which are hung old English prints.

Horizontal dimensions are emphasized everywhere

The furniture is neither Sheraton nor Chippendale, but of American design, made perhaps fifty or sixty years ago. Much of it consists of chairs and "sofas" which were probably covered originally with black horsehair and which are often associated with the decadent period of American decoration and furnishing. Covered, as they are here, with tasteful and appropriate fabrics, they may be said to have come into their own, and their use confers a certain character upon the room in which they are placed. A great deal of the furniture throughout the house was made, and has always been used, in the country near by, and its use here is therefore particularly appropriate as identifying both house and furnishings with the environment in which they are set. The mantels throughout the house are in many cases of old work which has been removed from other buildings, and the woodwork has been carefully designed to agree with them. The simplest of curtains have been used and are chiefly sash curtains and straight draperies pushed back merely to frame the windows and the glorious outlooks at hand upon every side.

Upon the second floor are arranged five bedrooms and a small sitting-room which occupies the space at the end of the upper-hall which, like that below, divides the house. Three of these rooms are provided with bathrooms of their own and the other bedrooms connect almost directly with another bath. In the upper story are quarters for servants which, through the service-hall upon the second floor, are connected with kitchen, pantry and servants' dining-room, and this arrangement throughout the building entirely separates the servants' portion of the house from that part intended for the family. Fully half of the space in this upper story is devoted to three guestrooms, a bathroom and the long corridor upon which all of these rooms open. Some of the windows here are recessed in deep dormers, from which are had most inspiring vistas of forest, lake and hills.

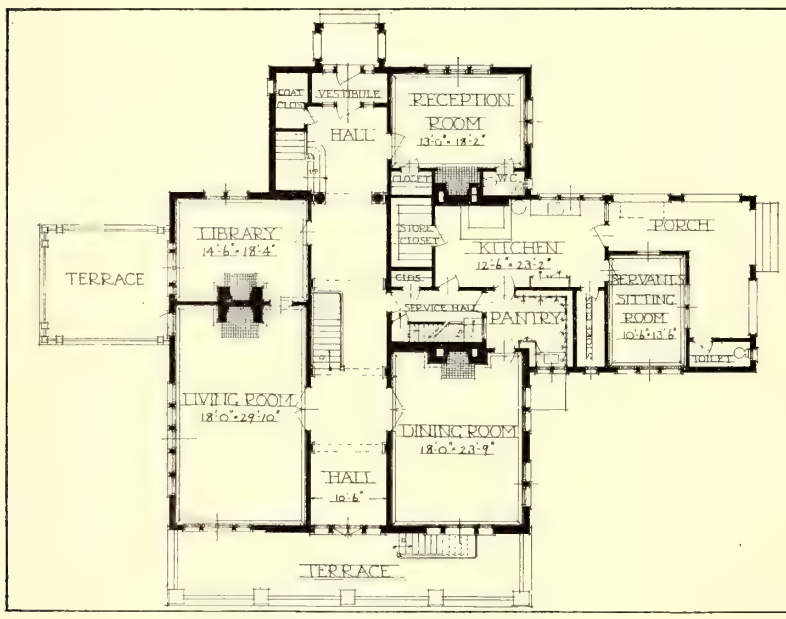
A short flight of steps from the main hall leads to the basement where, upon the side toward the lake, a billiard-room has been arranged. Owing to the abrupt slope of the ground this room is entirely above the surface and the thick walls which are the original masonry of the old mill are of stone pieced out with brick above windows and around doors. The inner walls and the floor are also of stone and at one end of the room, opposite the fireplace, a group of windows overlooks a grass terrace enclosed by a low wall. French windows also open onto a wide veranda flagged with quarries and covered by the terrace of the main floor, with which it is connected by a stairway of brick.

The old mill in its present aspect shows a remarkably

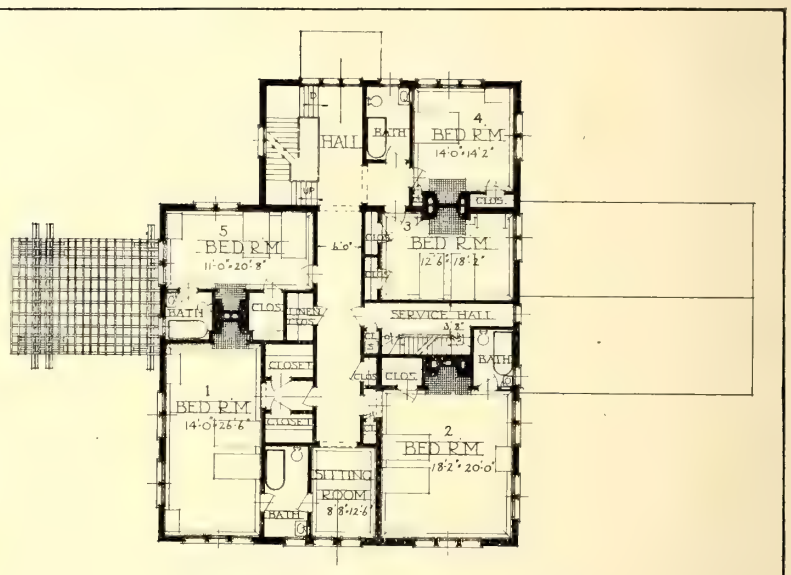
A view of the mill before alterations

A later view from the same spot

successful adaptation of an old building and other conditions to a purpose which is practical and which at the same time utilizes every picturesque feature at hand. From every point of view the estate is beautiful and interesting, for the use of the same stone everywhere makes for unity of expression, and the house with its immediate outbuildings, and vines have been so carefully selected and well planted, that the appearance is that of an old country home. Of course, the actual completion of such a place is a work in which time as well as nature plays a very important part and the estate will be vastly more beautiful when its trellises and pergola are hung with the vines which will one day



Plan of the main floor



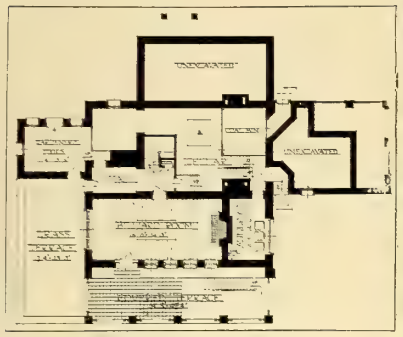
Plan of the second floor

connected as they are by wall and screen, form one well-balanced group rather than presenting the scattered appearance which might be expected upon a country place of somewhat extensive area. The grounds themselves have been as carefully planned as the buildings and the arrangement of driveways and paths and the planning of garden and tennis court have been so skillfully done, and shrubbery be there and when the stone work of house, bridge, walls and gate-lodge are covered with the ivy which does so much to fit buildings into the surroundings where they are placed.

The interest of the grounds about a country home is greatly heightened if something be left to the imagination and the entire resources of the estate not seen at a first glance. The most successful gardens and home grounds

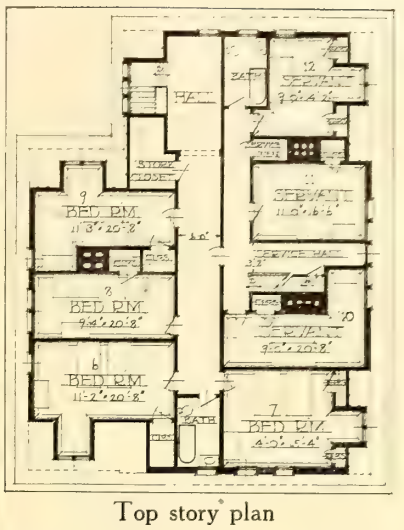
Lodge and wall of native stone

The house is delightfully situated



Basement plan

"A harbor for boats of light draft"

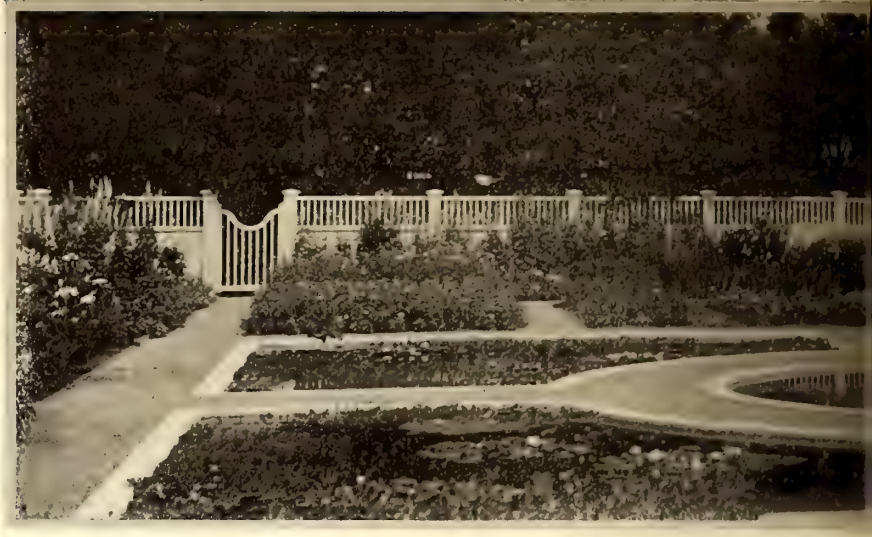


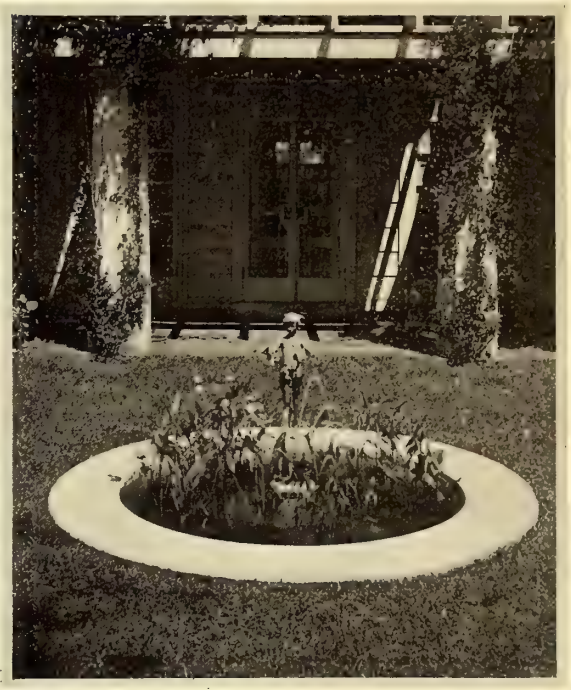
Top story plan

are those where certain features of beauty or interest are not shown upon first acquaintance but are left to be discovered later on. Much of this principle has been followed in working out the surroundings of this beautiful home by the lake. The estate consists of a tract of land very long and somewhat narrow, the smaller dimension being the frontage upon the highway and the greater the distance from the road to the lake. The shape of the grounds is therefore such as to be particularly adapted to successful "landscaping" and this is further aided by a heavy growth of trees and shrubbery which provides a screen where one is needed and opens up unexpected vistas where views are desired. The little mill brook which winds through the length of the estate is another feature which makes for the effect of increased space. All of these natural advantages have here been made the most of and thanks to skillful planning the grounds appear to be much larger than they really are. The house seems to be a long distance from the entrance-lodge and as one approaches it through the grounds the driveway is so arranged that its entire length cannot be seen from any one place.

In consequence of all this the house seems to be delightfully remote and retired from the world and very close to the heart of nature, for spread out before the threshold is the glorious panorama of water, hills and sky and close to the house, under the moss-covered stonework of the old mill, the little brook sings in its unceasing journey to the far sea.

The house is placed in extensive grounds in the midst of the beautiful countryside of Lake George





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EVERY GARDEN
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The street front of the modern home constructed from an old Colonial farmhouse

An Old Colonial Farmhouse That Became a Modern Home

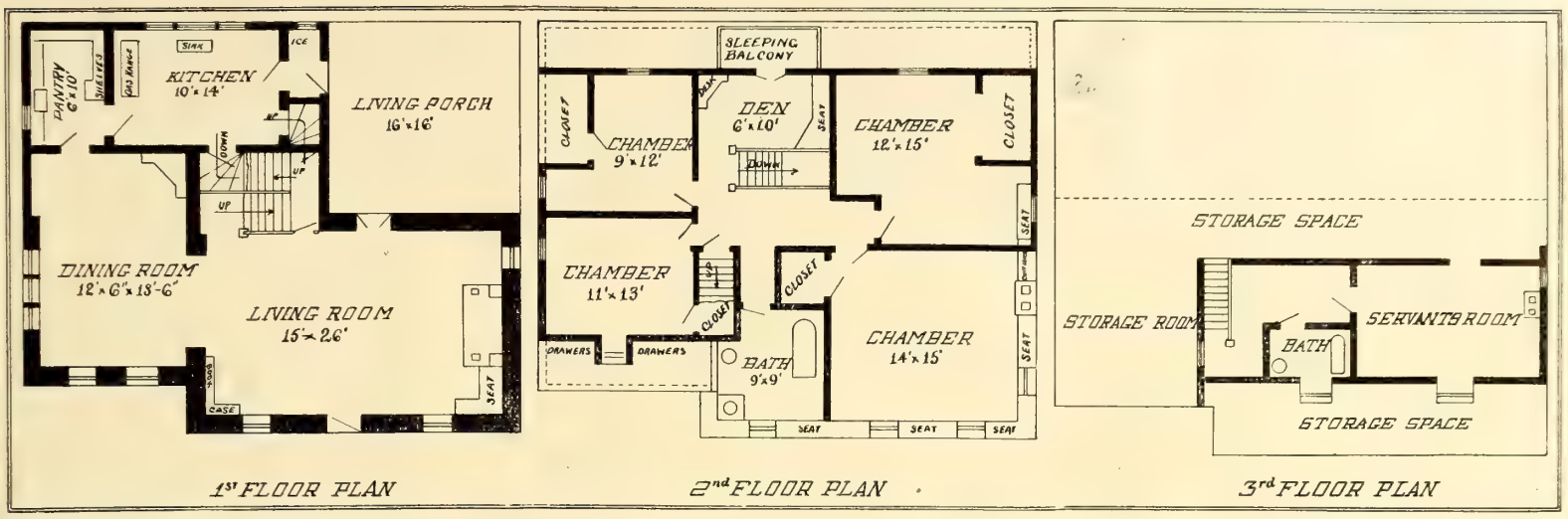
By Beatrice C. Wilcox
Photographs by Alice Boughton

HAVING lived on the beautiful island of Porto Rico longer than our physical beings decreed we should, we happily found ourselves transferred to our own country, and for a time to a city home. However, we longed for a real home—for a house that could have its little garden and therefore be a more complete home in the truest sense of the word. Chance took us one afternoon for a walk on the Jersey side of the Hudson, and it was then we discovered the old house that, remodeled, became our present home. It was old and "tumble down" in general aspect, so far as the back of the premises and its interior were concerned, but its stone walls stood firmly upon their foundations. Through the offices of a good friend who was acquainted with the owner of the premises, we entered into negotiations for its purchase, which, after two months of fluctuating price quotations and mind changing, was finally accomplished after giving in to a demand for an increase in price of five hundred dollars. However, we were happy in our bargain, for bargain we truly considered it from its many advantages.

The stairway leads up out of the living-room

Stone walls always have possibilities, so we decided to do just the necessary putting in order to make the old house sanitary and habitable and to enable us to be alone under our own roof. We went to a local plumber and bought seconds in a bath tub, corner lavatory, toilet and an enameled iron sink for the kitchen for almost nothing and had them installed; we had the house wired for a center drop-light in each room. Then the master of the house laid a new kitchen floor and painted the kitchen walls and the trim white. My white kitchen in the dingy old house attracted much attention.

It was now late Autumn and we bought two cheap wood stoves and an oil stove to use nights and mornings in the bedroom. In the wood stoves and fireplace we used apple-tree wood from the old decayed trees cut from the plot. At this time, during an absence in the south, the rear and frame upper portion of the old house burned, having caught fire from a defective flue. There was only one thing to do, we found we must reconstruct the dwelling, a task not very encouraging to face, despite the possibilities of the rare old walls that still stood firmly. It is said that Washington passed



the old house on his march down the Fort Lee hill, and the old walls certainly looked their attributed years. The grandfather of a present neighbor laid up the walls in clay and straw from field stone which he gathered from neighboring farms for this purpose, and they were well selected.

In the first place, upon considering rebuilding, we felt that we desired something different and better than the old house, and we hoped we had energy to carry out this desire. The walls, as they stood, with ample necessary grounds, occupied three lots, leaving us two front lots free. These we decided should remain so in case necessity made their sale expedient at any time. Then the reconstruction had to be upwards and rearwards. Afterwards came the problem of the roof in order to make possible a number of rooms with proper ceiling height. The mistress of the house having an antipathy for high houses, the problem was not an easy one to solve, but the features of design were finally decided upon, together with the alloted cost of reconstruction. We had asked two or three architects to submit rough sketches, but to our minds, the sketches shown us were pronounced top-heavy, hipped-roof affairs with sloping walls and cut-up space. None of them appealed to us seriously. Then we set about looking up photographs and plans as to maximum effect for the space at disposal, realizing that we must have a certain amount of usable space in a house on a half-acre plot, to say nothing of that required for our own needs. We ran across a set of photographs and plans in a magazine devoted to homes and gardens which clearly proved that we could get more usable space by adopting a similar roof line and cornice to that of one of the houses described. This appealed to us in its simplicity and its possibilities of quaintness in our case.

Bookcase in the corner of the living-room

Being Southerners and having a fondness for the old hand-split shingles, split by the negroes and used so much throughout the South, we decided they should be used in the building of our new home, for we realized their durability and the warmth secured by overlapping.

The road having been made after the old walls were laid, they remained nearer the street than we desired, so we decided that the front door should be merely an entrance, and that we would plan a large and more private living-porch in the rear, overlooking a large flower and vegetable garden and a handsome old apple tree, which many artists have since asked permission to paint. Likewise we decided that this living-porch would have a French window opening from the living-room and a pergola extending eastward.

A modernized Colonial portal seemed best to meet our requirements and to conform to the simplicity of the main body of the house and the few small-paned windows we de-

The old house as it stood when purchased before it was burnt. The superstructure had evidently been added to the original stone wall

sired for quaintness. I considered fewer windows, properly placed as to light, ventilation and usage of wall space, more practical from the standpoint of heating and the labor of cleaning. It is well to plan your color scheme to reflect light.

In planning the third floor we found that the maid's bathroom was without light, so the little "eyebrows" were put in the panels of the door to give light, ventilation and to break the roof-line at this point. One day a passer-by declared to her companion, "Them there awful, ugly little windoers in the roof can't be used, but I guess some foolish woman wanted them."

Lead panels in the bookcase in the corner of the living-room

In the rear the roof-line is broken by a long dormer. A space 16 feet by 16 feet on the east side is left open underneath for the living-porch, the roof-line being supported by one massive, simple concrete pillar. The floor of the porch —a buff-gray concrete, slightly rough in finish—is built on a level with the kitchen door so that food and dishes may be wheeled out for outdoor dining and afternoon tea-service. This living-porch, being planned for privacy and comfort, was placed on the east side for shade in the Summer and sun in the Winter and to be farther away from the nearest house.

The top of the stair hall

On the interior depends the entire comfort of the house; the proportioning of money and labor necessary in taking from one thing to add to another; for necessities these days demand much, and the checking of one's personality in planning and furnishing for the home must be either a living monument to one's good taste or to one's bad taste. Not being given to undue personal adornment, and believing an interior to be indicative of the occupants' natures, simplicity had to be the keynote for this reason, and for the reason that I had to do my own work.

The interior seemed impossible at certain stages, and framing was chopped away and the entire interior re-arranged by the owners, two helpful and never-tiring friends and the contractor. The mistress of the house made her daily inspection tour during the entire construction, and when complications arose spent the whole day with the workmen. Needless to say that I gained the reputation of being the most obstinate woman the contractor ever worked with, and the workmen thought me insane to diverge from the trodden path.

Being more or less practical, I decided there should be no waste nor unused space to be cleaned; everything should be condensed, convenient and the whole scheme should be simple; not one inch of molding to be dusted, and that it should be individual, no matter what other people had in their houses nor how severely they criticised what I was working out.

A Colonial interior was not my aim. I aimed to work out a more livable and practical interior where everything should have its relation to the other, and the whole be harmonious and inoffensive to the classic portal.

A glance at the floor plans shows the spaciousness of the living-room and the dining-room which my nature demanded, being southern born and reared. The walls' natural gifts, the deep-silled windows, give a distinctive charm to these two rooms.

The large cheery fireplace is more than a mere mass of masonry with a papier-maché log. Its construction was given much attention in order that it should not smoke and that it should throw out the maximum amount of heat with a minimum of wood. Much time was spent in selecting the brick, as I object to the lining, face and hearth bricks being of different color and texture. Then, too, the color had to harmonize with the color scheme. The long, low, simple arch, the lining and the sunken hearth are built of buff-gray bricks, wire-cut surface, which are fireproof and harmonize with the interior decorations both in color and texture. The fireplace is

The living-room showing the stairway and looking into the dining-room

The unconventional fireplace end of the large, well-lighted living-room

China cupboard in the corner of the living-room

The dining-room is simply and tastefully furnished

fitted with a damper and a brass pull-chain to close off the draft when there is no fire in the fireplace, and to keep out the mosquitoes and dust in the Summer time. It is also fitted with an ash-drop to the ashpit. The opening is four feet long. The low arch is especially handsome and does away with the big black hole of the high-arched fireplace and throws out more heat. The hearth proper is concrete, correctly proportioned in width, and it extends to the wall on each end in order to make the fireplace and fireside seat one. The mantel-shelf is an example of simplicity and proportion, being five feet five inches high. Under this simple mantel-shelf are groups of raised blue tile which repeat themselves in the concrete hearth. Above the mantel-shelf, as a part of the architecture, is a handsome mural decoration done by a noted artist. The seat is a continuation of the mantel, the shelf being used for books. A light is properly placed over the seat for reading in this cozy corner, and a nigh window brightens it through the day.

The bookcase was designed by a friend and built by a Norwegian carpenter who had served his apprenticeship as a cabinet maker abroad, but who commanded a low wage on account of his inability to speak English. The mistress of the house was his foreman. The bookcase carries the height of the mantel. It extends from the deep-silled window to the corner of the room, then to the glass doors between living-room and dining-room. The quaint little doors close off a space for choice books and papers. We had the wooden knobs made with wooden screw dowels for seven cents apiece, the ones purchased from the large hardware stores being impracticable and perishable in construction. The metal stencil is placed over the same blue of the mantel. The shelves are adjustable and a soft-toned silk curtain gives a charming color spot to the room.

The glass doors between the living-room and the dining-room fold back on each other, then against the dining-room wall. Being curtained, they give the required privacy at the dining hour. The curtains give lots of color and the glass doors give the idea of distance that cannot be obtained looking at wooden doors, then a charming effect is produced.

The stairs are remarkable in the small space they occupy, the easy mount and the individual balustrade. The space under the landing gives a dark fruit closet. I had preserved the walnut rail from the old house to be used as the new rail, but the workman needed only to hold it in place for me to see how hideous it would be running almost straight up and down in a few feet space. The present and much admired one was inspired by a similar one in an Austrian decorative book. The rise and off-set gives the idea of distance and open space to this remarkably small stairway. From the landing, backstairs run to the kitchen. The fireplace, the heart of the living-room, was planned far away from the stairway so that one may escape from the kitchen unseen.

Inglenook by the living-room fireplace

The dining-room was originally three steps down. The floor was raised to the level of the living-room floor, leaving the tops of the old stone wall exposed with a well-proportioned height. This we converted into a natural plate rail, which made the room heavy on one side. We balanced this weight by building in a roomy and artistic china cabinet, projected by the friend who designed the bookcase and built by the Norwegian under my supervision. It is a continuation of the plate rail in height and an artistic and useful treatment of a corner. Its long, graceful lines and its simplicity are enriched by leaded glass doors. One only needs to see it to realize that a cabinet for the corner, giving the balance, roominess and charm that this one does, could scarcely have been bought at any price.

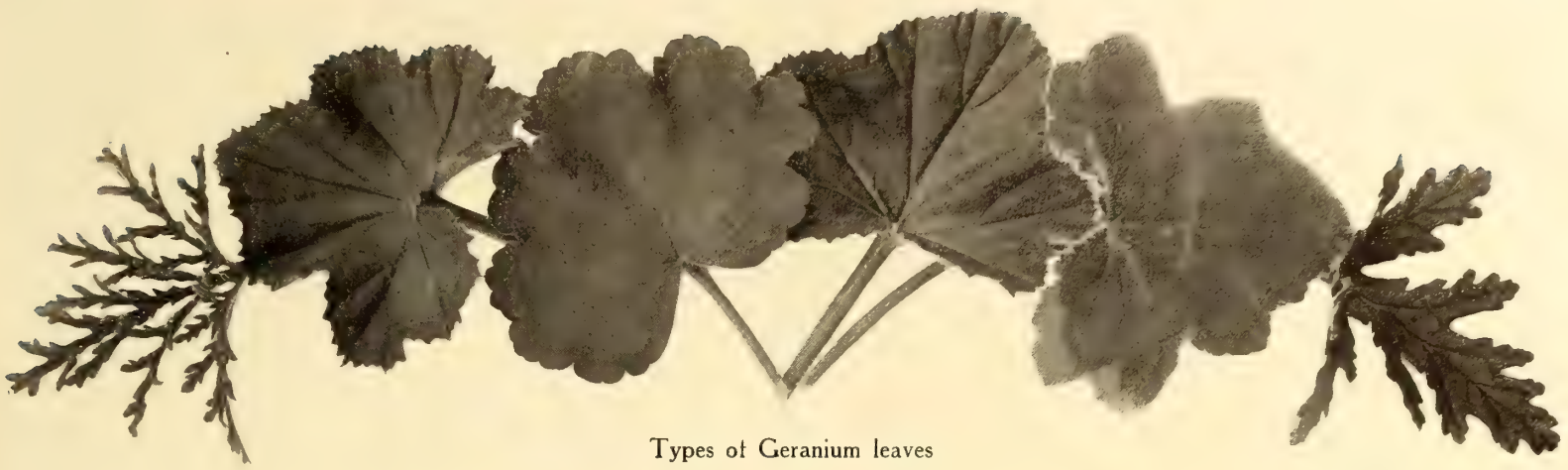
What the average contractor charges for built-in pieces, then placing their construction in the untrained carpenter's hands, is too ridiculous. A carpenter of foreign birth understands joining better, because he has to serve an apprenticeship before he obtains his license. Built-in pieces give an atmosphere and fitness that odd pieces never can. The three quaint little windows were designed to save the expense of cutting a clumsy large one through the stone walls, shown in an original plan, and to give an indirect light on the table so that one dining at the opposite side of the table would not be compelled to face the strong light. The trim is of white wood set with the cross pieces over the doors and windows, between the uprights. The unbroken, graceful lines of the upright give height to the ceilings and an individual placing of trim. The one-paneled doors are most attractive and have only four corners to be dusted, while the usual five-paneled door has twenty corners to be dusted. The trim is painted a beautiful cream white. We bought our materials and gave the painting out by day's labor, and superintended the work day by day. The floors are two-inch, combed-grained pine, filled and waxed. Having a few rare old pieces of mahogany and believing buff or gray to be their best background, and not caring to live with Colonial yellow, nor the sallowness and coldness that gray walls give, we compromised by having a delightful buff-gray which is a perfect background for paintings, furniture and persons, and admits of cheaper draperies than any other color scheme. The walls are sand finish tinted buff-gray. We purchased our materials and mixed our tint. The curtains are made of a corn color French tissue, forty inches wide, at fifteen cents a yard, and stenciled in a bold design of nasturtiums, giving just the desired color and the sunniest glow imaginable in the rooms. The stencil was patterned by the designer of the built-in pieces and the stenciling was done by the mistress of the house. The rugs are homemade rag rugs in blue and white and colored hit-o'-miss. The cushions are made of Russian crash and embroidered in silk in bright contrasting colors. The inherited couch is upholstered in a buff-gray rep that harmonizes so well with the walls that many ask if it has not been dyed to match. The putting of color in one's cushions, curtains and rugs admits of changing the color scheme oftener than does the retinting of walls and re-upholstering.

Chest of drawers built into the walls of the upper stairway-hall

The master's hall den is cleverly done in that it hides the necessary headroom in pushing three steps out of the kitchen floor without doing away with the absolutely necessary back stairs, that contractors and architects so knowingly assure you must go or extend into the middle of the kitchen floor, as a dangerous stumbling block for all members of the family, and breaking the easy sweep for cleaning. My stubborn nature asserted itself and stood against every sort of argument. The headroom was measured and the door on the landing was framed leaving the height of the three steps above the floor, unsightly to be sure. The seat was designed to hide it and an open space left for a wall radiator. The desk was especially designed for the corner and for the use of the master. The little doors close off the array of garden catalogues always at hand, and odds and ends. The deskroom is of convenient height and ample size for writing. The adjustable shelves give ample space for garden and other books. The curtain space admits of color, as do the colored cushions spread on the seat.

(*Continued on page 297*)

A view of the remodeled house from the street front showing the treatment of the old wing



Types of Geranium leaves

The Geranium

By F. F. Rockwell
Photographs by the Author and Nathan R. Graves

OF OUR good, common flowers, the least known and the least appreciated is the Geranium. That may seem a strange statement to make; however, to my mind, there is not the least doubt about it. "But," you may say, "look at the hundreds of thousands of Geraniums that are grown by the florist; one sees them everywhere—no other flower so often." All that is true enough. But can you give me the names of half a dozen good varieties? Can you tell me in what way they have been improved during the last twenty years? What enthusiast about Sweet Peas, Dahlias or Gladioli could not name you a score of his favorite varieties and tell you any number of fine points regarding their culture. But how often do you find any one who *knows* about Geraniums? The majority of folk, simply order a dozen "red," a dozen "white" and a dozen "pink" from the florist in the Spring, and that suffices. I grant you that the Geranium is the most popular of all flowers, but I contend that my original statement is true, nevertheless.

There are good reasons why the Geranium is the most popular flower. First of all it is an optimistic flower—given half a chance it is always bright and cheery. And then it can be had in bloom the whole year around. It is easy to take care of, and will struggle to show some beauty even under gross neglect. It covers a wide range of colors, in both delicate and intense shades. Why, then, in comparison to many other things, has it been so slighted by the professional horticulturalists who have, by special "societies," advertising and general publicity, pushed other flowers to the front? To the insider the answer is not far to seek—there is less money in it!

Given half a chance, as I have said, the Geranium will thrive. Under all sorts of conditions, in all kinds of places, one sees its cheerful colors flaunted freely; great beds of it in the broad lawns of the wealthiest, and blossom-covered plants in the window or by the doorstep of the factory tenement. This means that it cannot be particular about soil, or temperature, or fine degrees of moisture. In fact, only yesterday, I noticed under a bench in the greenhouse some old plants that had been thrown there over a year ago, and had not been thought of since, were actually beginning to bloom! Any other really useful plant most certainly would have died.

NEW TYPES AND COLORS.

But though you may see the Geranium everywhere, very seldom do you find anyone who knows what varieties they have, or anything like a representative collection of the finer sorts. While in this country the Geranium has been comparatively ignored, abroad it has received the attention it merits, and in France and Germany especially, it has been developed to a marvelous degree. This work on the part of skillful hybridizers has resulted not only in new varieties and shades, but in new types as well.

The Madame de Thebes Geranium, delicate pink in color

The Geraniums most commonly seen belong to the double and semidouble class, though now and then one finds a single. Some of the most beautiful flowers are to be found among the singles, but they lack substance, and as a rule, the blooms become mutilated so quickly, through the loss of petals, that this makes a very serious objection to this class. Among the semidoubles and the doubles there is a wide range of form in the trusses, some being so open as to show the individual florets, and others almost as densely petaled as a Petunia. A striking and most important feature of many of the new doubles is the exceedingly long and stiff stem on which the flower-truss is born. This is making the Geranium of value

The Geranium blooms freely at all stages of growth. The illustration to the left shows plants in their first pots. That to the right, a plant of the Silver-Leafed S. A. Nutt Geranium, dark red flowers and soft green foliage edged with creamy white. This is one of the most satisfactory Geraniums for potting

as a cut-flower—a use to which it was not formerly adapted, but for which it has, I believe, a promising future, especially on account of the long-keeping quality of the blooms. The scented-leaved sorts have long been favorites. The old popular Rose Geranium is recorded as a favorite as far back as 1690. There is a good variety of odors and leaf-forms, all very attractive, but more recent introductions have shown improvements in the plant form and size of flower,—the two objectionable characteristics which this class has had. Some of the new sorts are described more fully at the end of this article.

Then there are the variegated and tri-colored foliage sorts grown chiefly on account of their decorative quality. With these the flowers are for the most part shy and small, but a few of the newer ones, especially Silver-leafed S. A. Nutt, are as valuable for their flowers as for their foliage. The one named makes a most striking and handsome plant.

Old varieties of all these types are familiar to most of us, but the newer races of Ivy-leaved, Cyclops and Cactus-flowered, especially the last two, are as yet comparatively unknown here. Among the Ivy-leafed sorts, remarkable for the beauty of texture and form of their leaves, are to be found the most delicate shades of color, especially in the blush pinks and lilacs, so far attained in Geraniums. There is one thing that has kept the Ivies from becoming more popular as pot plants, and that is their tendency to a lanky or trailing habit of growth. While proper culture and cutting overcome this to a large extent, it is more satisfactory to know that some progress has been made, through crossing the Ivies with the zonals, to control the habit of growth. There is no doubt that the Ivies are destined, in the near future, to achieve very general popularity.

Geraniums ready for pruning

Geraniums after pruning

The "Cyclops" strain has been reached through a long continued selection for the secondary color, usually white, in the blossom. The result has been a race of strong flowers of good habits, in which the center or "eye" is a distinct shade from the body of the petals, and even a contrasting color to them. Others are marked in various striking and distinct ways, and on the whole this strain will do much to add variety to Geraniums, making more material for "collections," which is, of course, a thing to be desired.

The "Cactus" type is the most distinct and interesting "break" the Geranium has shown, the petals being narrow and curled and twisted like those of a Cactus Dahlia. The growth of the plant is rather dwarf but robust, and the wonderfully beautiful blooms are borne in great profusion. These new sorts, originating in England but a few years ago, are particularly adapted for pot plants or veranda boxes, vases, etc., and will undoubtedly do much to attract to the Geranium the attention it deserves in this country.

TYPES FOR DIFFERENT USES

With this wealth of form, color and habit of growth, it is small wonder that the Geranium has as wide a range of uses as any plant grown. Without the slightest monotony of

effect it can be used, I was going to say, *everywhere,* and I do not know but that will stand literally. From the border along the front wall, to solid beds upon the lawn, as an edging for other flowers in the garden, in vases and veranda boxes, both as upright plants and trailing vines, in glowing masses of color, in vases or bowls in the house, and as some of the most beautiful and continuous flowering single specimen of pot plants for window or conservatory, at all seasons of the year, it can be used, and it merits far greater attention than we have ever yet awarded it—simply because this is an age of advertising and the Geranium has never been freely exploited. Some day, and merely upon its splendid qualities, it will come into its own.

Various types of Geraniums ready for repotting from three-inch to four-inch pots. Note the white "working roots"

The most general use for the Geranium, of course, is for bedding. Happily, improving taste in landscape art has almost eliminated the stiff and formal flower bed, with mathematical rows, segments and circles of contrasting and jarring colors of flowers. The most striking effects are undoubtedly to be had by using one color at a time, although there can be no fixed rule. Art with flowers, as with pigments, harmonies or words, eternally creates exceptions to its own fondest rules. For bedding purposes the standard favorite zonals, such as S. A. Nutt (dark red), Beaute Potevine (light salmon), Buchner (pure white), Alphonse Ricard (intense vermilion), are the most generally used, though some of the Ivy-leaved hybrids of compact growth are proving valuable for this purpose. These, and similar varieties, are robust in growth, and a pleasing "finish" to the Geranium bed is had by using one of the low-growing variegated foliage varieties, such as Mme. Salleroi or Golden Brilliantissimum. For veranda boxes and large vases a very charming effect may be had by using one of the zonals for upright plants, and matching the color of the flowers in an Ivy for trailing over the edge, as for instance S. A. Nutt and Ceasar Franck. Vincas are almost universally used with Geraniums for this kind of work, on account of their beautiful green and white foliage and graceful pendant vines. The variegated Ivy Geranium, L'Elegante, makes a charming plant to use in place of some of the Vincas. All of the Ivies, in fact, lent themselves particularly to this sort of work, being not only most graceful and artistic, with their sharply cut waxen leaves and beautiful individual flowers, but they withstand general exposure and dryness very well.

Fifteen cuttings from two old plants. The large leaves are cut back

For single plants in pots, for window, conservatory or veranda, almost any of the Geraniums do excellently except a few of the heavy-wooded doubles, which need too much room, and the singles, which as a class shatter too quickly, although some of them are good. It is for this use that the new "Cactus" type will prove a most valuable addition to our list of house plants; and the "Cyclops" also are suited for culture in this way on account of the great beauty of the individual flowers. The Ivies too are prized highly when cut back to induce a stocky growth, well branched. They are very profuse bloomers. Silver-leafed S. A. Nutt is one of the handsomest pot plants imaginable, and others of the variegated and tricolored class, which have proved fairly good bloomers, make fine single specimens. Two great points in favor of Geraniums as house plants are the ease

Showing specimens of rooted Geraniums ready to be "potted off"

Old plants, six weeks after cutting back, ready for the season's growth

with which they can be grown and the long season of bloom, practically all the year through. Even the cutting bed, unless bud-stalks have been removed, is frequently well starred with blossoms, and in the smallest pots it is not rare to find a truss of flowers almost as large as the whole plant itself.

CULTURE INDOORS AND OUT.

While the Geranium will live and blossom under very adverse conditions, it is one of those rank feeding plants which immediately shows the result of good care and fertilization, and repays any trouble taken along these lines in a very perceptible way.

Plants to be set out in beds should be started late in the Fall or early in the Spring previous. The former are taken through the Winter in an almost dormant state, and started into more active growth as the warmer days of February come on. For Spring cuttings, the "stock" plants, such as one may have growing in the window, should be given more water and got into active growth, making fresh wood for propagating. Two such plants—one grown with the right shape and the other of the scrawny sort one so frequently sees—are illustrated herewith. They picture the Spring pruning, given both to keep the old plants in good shape and also to get a supply of cuttings, which are shown—fifteen from the two medium-sized plants. The cuttings are potted off into two-inch or two and one half inch pots, and grown on without a check—which means giving them plenty of sunlight, air, water and a temperature as near 45 to 50 degrees at night as can be had, and repotting as often as the roots indicate that they are ready for a shift by forming a network of white working roots around the outside of the ball of earth. From the small pots they are usually put into threes and then later, during April, into fours. The soil used should be rather heavy for the last two pottings—say, one third rotted sods, two thirds heavy loam, with fine bone flour—half a shovelful to a bushel of earth—added. If one has on hand a supply of regular potting soil, of course, that will do, though if it is light it will be better to mix it half and half with heavy loam. The beds should be well enriched with rotted manure, and spaded down to sub-soil, or as deep as possible. It is a common practice to make them in a mound shape, rounded over the top, but this is a mistake, as rain, or water applied with the hose, will run off instead of soaking into the ground where it is needed. If a raised bed is desired, keep the top as level as possible. After setting out do not leave the beds to shift for themselves, but go over the surface with a small hoe—the "onion" type is the most convenient to use—every ten days or so. It will take only a few minutes at a time and is pleasant work. A light top-dressing with some fertilizer rich in nitrogen, applied during the middle of the season, and worked in well about the roots, will increase the quantity and quality of bloom. Nitrate of soda alone is excellent for this purpose, but it must be used in very small doses, a small handful will be ample for a dozen plants.

Plants for blooming in the house are best started in the late Spring, and grown on as described above. After being put in four-inch pots, "plunge" them pot and all, in the garden outside, that is, bury them up to the rim. This will make it very much easier to take care of them, and to keep the pots from drying out, but the precaution must be taken to turn the pot around frequently, at least every two weeks, to prevent the plant from rooting through into the cool, moist soil below. For the best results later on, also, all the buds should be picked off until late in the season so that the full vigor of the plant may be utilized in getting ready for its Winter work. The soil used for the last potting should contain plenty of "humus" such as rotted sod or decayed manure, and some sand to insure good drainage—which is one of the most essential things about growing plants in the house in Winter, when very little

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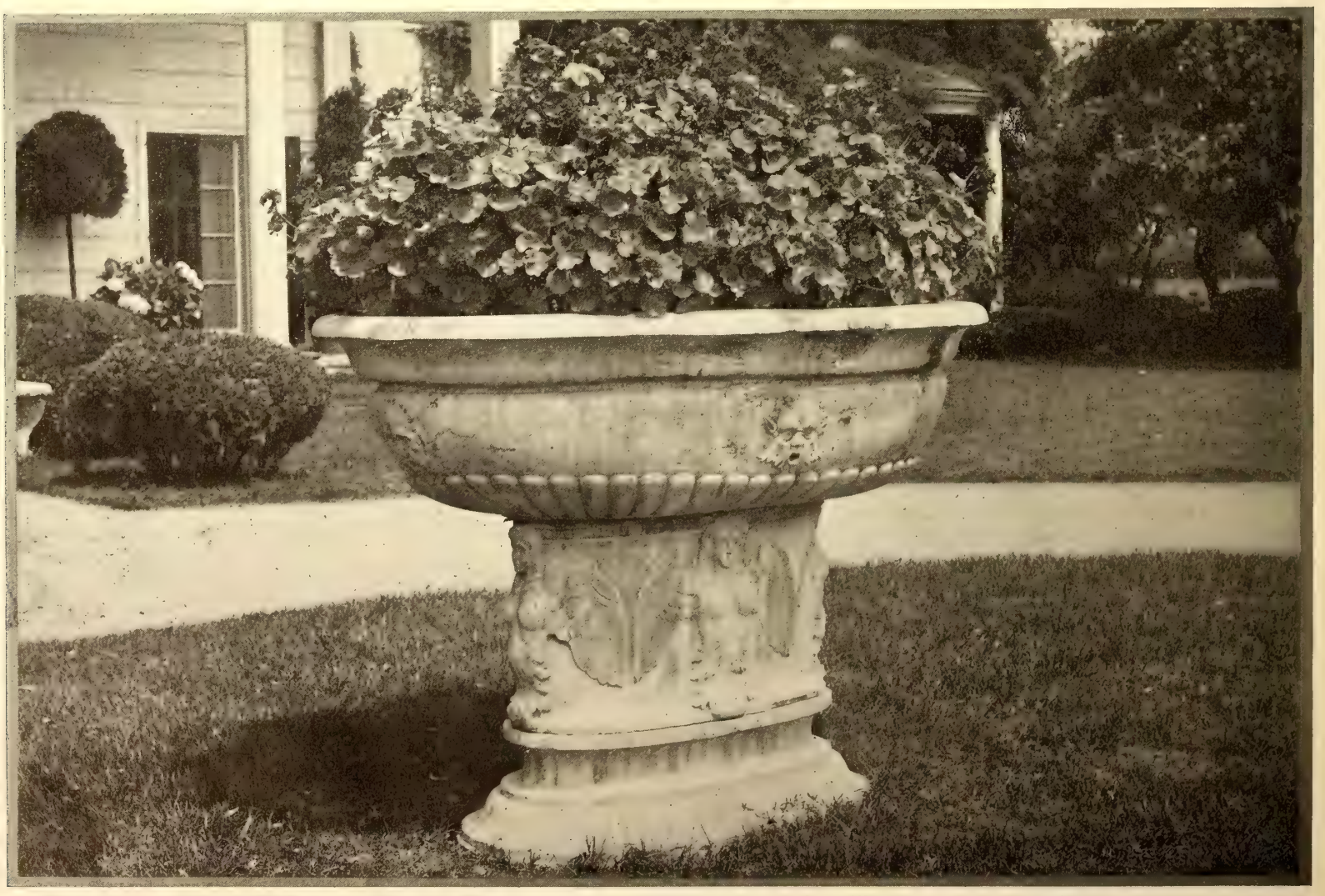
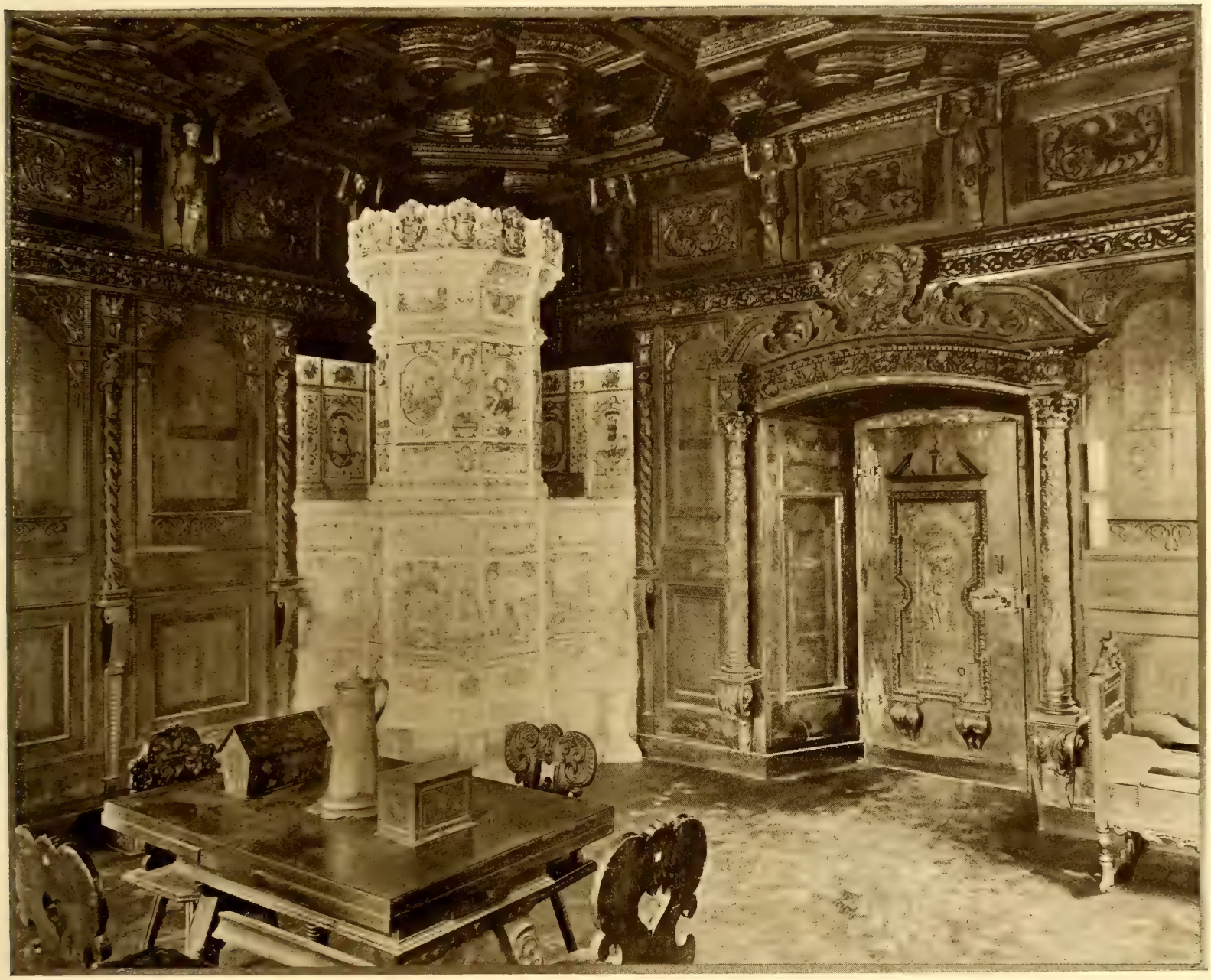


A mass of Geraniums forms one of the most successful decorative plant fillers for attractive garden vases



Courtesy of the Metropolitan Museum of Art

One of the exhibits in the industrial arts section of the Metropolitan Museum of Art, New York, is an entire room from a seventeenth century house in the village of Flims, Switzerland, containing a fine example of a porcelain stove

Museums and Decorative Art

By Henry Hollis

WE are all children, inasmuch as we like to "see pictures," which, owing to the relation that this form of art bears to literature, mythology and allegory, has resulted in the story-telling or pictorial form of artistic expression being the best known and the most appreciated. In the past the art museums have fostered this idea and most of them have had their beginning in a collection of pictures, so that when an art museum is mentioned, the lay mind instinctively conjures up a vision of row after row of pictures, plaster copies of antique sculpture, Oriental porcelain and pottery, perhaps, and nothing more.

The great interest taken in all forms of art in America during the last decade, the educational influence of foreign travel, of the great private collections which have been assembled with care and discrimination, of the local collections of historical and antiquarian societies, and a realization that all art does not begin and end in paint and canvas, have combined to broaden the scope of the various museums of art throughout the country, until now nearly all of them give room to industrial arts.

No longer can the modern museum be regarded as a storehouse of inert matter. It is, instead a working museum, that is to say, a vital force in the community, having its collections arranged in a manner readily accessible to architect, decorator, craftsman and student of industrial art, who seeks to become inspired by the best traditions of the work executed by the artists and craftsmen of all countries and all ages, working in metal, clay, wood and stone. Here one can see how the most ordinary things with which we are daily and hourly surrounded, have been touched by the hand of the artist and made beautiful; a key-plate, the hinge of a door, a chair, a piece of molding, have been raised above the sphere of the commonplace by an artistic genius.

The historical and antiquarian societies throughout the country have done much to improve the general taste by assembling collections of old Colonial furniture, silver, pewter, and china, and have accomplished noble results in restoring to their original beauty and preserving for posterity, old houses which would otherwise have been destroyed by the ruthless march of modern improvements. Our Colonial architecture and furniture is the nearest we have approached to evolving a national style, and we must

(*Continued on page 294*)

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

THE DECORATION OF REMODELED FARMHOUSES

By Harry Martin Yeomans
Photographs by T. C. Turner

THERE is a certain fascination about the remodeling of an old house, and one's interest will grow and be stimulated as the necessary changes are planned and visualized, to make it conform to the modern standard of living conditions, and in this manner a certain personal element will be imparted to the house which will make it peculiarly one's own.

The tremendous interest recently evinced in all forms of country living, and the great number of abandoned farms which have been offered for sale, especially in the New England States, has resulted in a large number of farm properties being acquired by urban residents for pleasure or profit, or both.

If there is a substantial, well-built house on the farm lands, it is always well to consider seriously the advisability of remodeling it in preference to building a new house. The old, rambling farmhouses of New England, the Dutch gambrel-roofed houses of New York and Long Island, and the old, stone farmhouses of Pennsylvania, all possess wonderful possibilities to the discerning eye, and satisfactory results can usually be obtained by remodeling, if too elaborate effects are not attempted. The sturdy frames and honest construction of these old buildings bear silent testimony to the fact, that they were erected before the advent of the trade's union, when the aim was to build, not for a day, but for all times. The long, low roof lines, the many-paned windows and the simple details of the front door, of some of our old farmhouses, impart such an air of quaintness and charm, that these details have recently been incorporated by architects in numerous modern houses of the farmhouse type.

The interior arrangements can be transformed to meet the requirements of the present mode of living, and the "best parlor" and "spare bedroom" thrown into a good-sized living-room, the kitchen reduced in size to make possible a larger dining-room, and, perhaps, a wing added to give an outdoor living-room and an additional bedroom above.

The woodwork of the old houses was often crude, but it was the honest product of hand labor, and therein lies the indescribable charm of some of the wood-trim to be found in not a few old farmhouses. In some Colonial farmhouses will be seen rooms with paneled wainscotings, built-in cupboards and closets and mantelpieces that are exquisite examples of cabinetwork. All such woodwork should be retained, as far as it is possible to do so, and in that way preserve the old-time atmosphere.

In a remodeled farmhouse, all kinds of old mahogany furniture can be used to advantage. It need not be so true to style as the furniture intended for a more pretentious house, and the mahogany American Empire furniture, so popular about 1820, will become a farmhouse dwelling. The old, painted rush or flag-bottomed chairs, which have but recently returned to favor, are appropriate for a farmhouse, as well as the old, maple furniture, Windsor chairs, old oak or walnut furniture, in fact, all furniture that will impart a sense of comeliness and cheer, is at home in the remodeled farmhouse. But do not commit the unpardonable sin of placing modern furniture of the Mission type in a home such as this. The writer recently saw what was otherwise a perfect dining-room, having beautiful Colonial detail in wood-trim and mantelpiece, which had been hopelessly ruined by using a Mission dining-room set, which was good in itself but entirely out of place in the environment of a Colonial farmhouse.

Rag rugs and carpets, braided rugs, simple curtains at the windows, plain wall-papers, tinted or painted wall-surfaces, and hardwood or painted floors are all commendable, depending entirely on the amount of money to be expended.

The bedrooms should be simple, and simplicity should be the keynote of the whole house, remembering that an elaborate decorative scheme is not consistent with a house of this character, one which requires the furniture indicated.

MUSEUMS AND DECORATIVE ART

(*Continued from page 293*)

look to our museums to keep alive an interest in the beautiful things that helped to make life pleasant in the days of our forbears.

The Metropolitan Museum of Art in New York city, has one whole wing devoted to the display of its collection of decorative objects of art. This wing was designed especially to hold the collection and it is shown to the best possible advantage. Briefly described, this part of the museum consists of a large central hall, surrounded by two stories of smaller galleries, so that the lover of the beautiful can wander through twenty-five galleries and study the progress made in the various crafts and decorative arts, as expressed by the workers in wood, stone, weaving, ceramics and metals, from the Gothic period down through the mahogany furniture of our own American renaissance.

Those who are interested in interior decoration will hail with delight the chronological arrangement of these spacious galleries, which afford an opportunity to study from original pieces the furniture and woodwork of the Gothic, Italian, German and French renaissance periods, the French art of the seventeenth and the eighteenth century, and especially interesting to us, the English Georgian and American Colonial furniture of the sixteenth to the early nineteenth

century, presented in a manner worthy of such fine examples.

The Museum for the Arts of Decoration at Cooper Union, New York, is likewise a rich treasure house of decorative art and in its galleries can be seen beautiful specimens of the wood-carver's art, furniture, fire-gilt bronze furniture mounts, fabrics, painted panels, and a vast quantity of other material, all of which is of great value to those who are interested in the arts and crafts of another day. This museum is especially rich in the work of the "Second French Renaissance," including those great periods of decorative art, named after the monarchs of the time and known as the periods of Louis XIV, Louis XV and Louis XVI.

Here, too, the collection is shown in chronological sequence and this convenient and logical arrangement enables one to note the gradual transition from one period to the next. The best originals extant have been selected with great care by French connoisseurs as eminently useful and worthy of emulation and embodying all that is best in the French art of the advanced seventeenth and the eighteenth century.

Art collections, both public and private, such as these are a great factor in formulating the public taste and must result in a demand for better things in architecture and interior decoration and a more keen appreciation of them.

A BARN THAT BECAME A HOUSE

(*Continued from page 273*)

getting of meals. This is done largely by having modern conveniences for cooking and the best possible utensils, while the meals are served simply and attractively. Time and labor are saved by having the kitchen and dining-room in one.

This room, which was the former stable, is about twenty by twenty-two feet in size. The coal range and porcelain sink, on one side of the room, are hidden from the dining-room part by the high backs of two settles, which serve as seats at the dining table. The range and the sink, which were brand new, were great extravagances, but very necessary ones. The sink is oatmeal-color, and has brass faucets instead of nickle ones. Galvanized iron also must be used in that part of the country, on account of the rust which comes from the sea dampness.

On a table behind the settles is a denatured, alcohol stove with two burners, which is much used in the hot weather. A fireless cooker also saves time and trouble.

In one corner of the room there is an old driven well, twenty feet deep and bricked up on the sides. This makes an excellent ice box, and perishable food is kept down there, while lemonade and grape juice are hung below in the well for a while, and brought up ice cold.

There is a pantry adjoining the kitchen, which is so arranged as to have a continual current of air flowing through it. The flooring is made of very heavy wire netting and the shelves are made of the same material. The air comes through the flooring and from a high window at the north, making this room thoroughly comfortable to work in.

The tray wagon is a happy institution. It is made of lead tubing with rubber-tired wheels, and with its aid afternoon tea can be wheeled into the living-room, or meals can be taken out on the porch, with very little trouble.

This unique Summer home is both picturesque and practical. There is every comfort and convenience that there was in the house and many things that never could have been found in a conventional home restricted in its range.

WOVEN FURNITURE

(*Continued from page 276*)

rying the peacock blue and green from the draperies to the furniture the two were successfully tied together.

To accompany a cretonne showing pink roses climbing over a pea-green trellis, the furniture was painted two tones of a soft, tender green, and another set, intended for a Wistaria-room, was painted a beautiful gray, with just a suggestion of mauve showing through the last coat of gray.

Some other willow chairs were painted a dark mahogany, almost black, and were just right for a room to be done in the Chinese taste, where the walls were covered with a natural-colored grass-cloth, and the draperies and cushions were of black chintz in which dark reds predominated in the Chinese design. In a room such as this, where things Chinese were taken as the keynote, the "hourglass" chairs already referred to could be used to advantage, and would carry out the spirit of the Chinese decorative scheme.

In all of the rooms mentioned, it was planned to use plain wall coverings to counteract the effect of the very decorative fabrics used for draperies and cushions.

Tables of the lighter Mission type, with tapering legs, when stained to match the general color scheme, make excellent living-room tables to be used with willow furniture. Soft loosely woven fabrics, textiles of flax and rag rugs and like materials and shapes, owing to their loosely woven texture, are fitting accompaniments for woven furniture.

The two interiors here shown, although of new houses, yet suggest in their furnishings, suitable decorative schemes for the remodeled farmhouse that finds itself transformed into an attractive modern country home.

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewi h.

THE AUGUST GARDEN

WHEN all the lovely flowers in the hardy borders are making the Autumn garden ablaze with gorgeous color, the provident gardener, anticipative of next Summer's delights, will not forget that perennials should be sown in cold frames in August. By planting them in frames, the seeds will escape being washed from the soil by Fall rains. Then, too, one may plan now for the Winter garden indoors. Seedlings set out of doors in early August, may be transplanted to small pots "plunged" in soil, and removed indoors as soon as frost threatens to make its first appearance. In plunging the pots for out-of-door plant growth, the garden beginner should not forget to lift the pots every now and then, to break off any roots that may have pushed down through the opening at the bottom of the pots to root firmly in the external soil. These ambitious root stragglers must not be allowed to take firm hold; to this end it will be well to fill the holes in the bottoms of the pots.

Every complete garden should have a beautiful sundial. It is a good time now to plan for one, for the garden maker will be able to see just where, amid the blaze of autumn color a sundial would find its most picturesque setting

THERE are few flowers dearer to the hearts of garden lovers than the Pansy. Pansies thrive best where an abundance of moisture reaches them, for they suffer greatly from drought and from the scorching rays of too constant sunshine. Nearly all garden makers treat Pansies as annuals, though they are, in reality, perennials, wherefore their seed may be planted toward the end of the Summer to insure an abundance of plants the following season, to take the place of those that have not survived climatic severities through a long hot Summer. Wonderful results may be obtained if the Pansy seed is sown in cold frames; then the Spring blossoming period will be productive of an abundance of fine plants. As to the proper soil and location for Pansy beds, a rich loam in a spot where the morning sun penetrates, but which is shaded in the afternoon is ideal for Pansy culture.

LIKE all other garden flowers, the Pansy has a little history of its own that is well worth reciting, for one should feel that the flower garden is something more than a propagator of vegetable decoration,—that it is a storehouse of interesting plant-forms, rich in association with the history of mankind. It is supposed that the *Viola tricolor,* a wild violet native to Europe, was the ancestor of the Pansy, and that careful cultivation brought it to the perfected forms of the present, which such noted horticulturists of the late nineteenth century as Trimandeau did so much in the way of making possible by their indefatigable attention to this particular plant.

OTHER seeds may well be sown in August, that of the Japanese Morning-Glory, French Marigold, *Phlox Druminondii,* and Sweet Peas, for indoor development later. July sown seedlings of the Aster may be transplanted now into pots, plunged in garden soil.

THE garden should be kept clear of weeds. They should not be permitted to grow up, even in those spots where there have been failures in the garden, for this year's weeds at any time, if permitted to reach maturity, will mean troublesome times with them next season when their scattered seeds have sprouted and taken root. With weeds an hour of prevention will be found to be worth a gallon of cure.

THERE is still some planting one may do, if attended to immediately. Radish and Lettuce may be sown at this time for late crops. In clearing the garden beds of the débris after harvesting, it will be well to burn all the old vegetable matter, for then it will not be left to invite insect pests to take shelter in the underlying soil, to menace next year's garden. Set out Strawberry plants the first week in August, if wishing to have them bear fruit the next season.

IT will be well to begin now to think about planting Evergreens. Indeed, August is none too early for the actual planting itself, for thus one may anticipate the rush incident to September work in the garden, when there will be bulbs to set out and gaps in the perennial borders to be filled in, and greenhouse work. Thus it will be seen that the August gardening operations though few, perhaps, furnish enough for the garden beginner with occupation sufficient to maintain his interest and enthusiasm in mankind's most delightful and healthful recreation of developing nature.

A GARDEN CORNER-SEAT

IN the May, 1912 number of AMERICAN HOMES AND GARDENS a number of garden seats were illustrated. On this page the reader will find reproduced a photograph of a very attractive corner-seat. This would make an excellent feature in large gardens or on grounds that are planted with shrubbery and evergreens. The general plan of a bench of this sort is adaptable to working out in rustic style.

Here one sees pictured an excellent way of making a lawn feature out of a few boulders and field stones which are overgrown with a riot of gorgeous nasturtiums that have been planted with reference to a closely clustered color effect

THE REMODELED HOUSE

(*Continued from page 270*)

turn with pleasure to the problems of remodeling the old Colonial farmhouses, and village cottages with a zest that is refreshing. A few miles away from the ancient inn, where every Governor of Massachusetts, from 1776 to 1876, is said to have been received as an honored guest, there is another town, woefully new, a veritable nightmare of "builder's architecture." I cannot help but contrast the two villages, the one which is quaint, and lovely, a hamlet of homes, and the other blatant in its bad taste, which sacrificed the old ruthlessly, because it believed it could not be happy with life that could not be spent under a roof with a cupola. In our old village they will point out to you the little remodeled cottage where Daniel Webster used to visit, the house in which the words to "Yankee Doodle" are said to have been written, and other delightful nooks and corners of Colonial and later period interest, from the days of the Pilgrim Fathers to the present day. Of course every attractive old house may not have a history, but it will seem to have, and that, after all, is one of the greatest charms of the new house made from the old one.

AN OLD COLONIAL FARMHOUSE

(*Continued from page 288*)

Under the eaves in the sewing-room are two sets of built-in drawers, the bottom ones being so large that they served as a bed for two visiting babies for ten days. There is an outlet for an electric iron, to save the time of the seamstress and confusion downstairs. The runway to the bathroom has two linen drawers built in under the attic stairs, which enables one to get fresh linen without entering a bedroom. The quaintness and simplicity of the house attracts every passerby, and it is most amusing to hear persons arguing most strenuously as to its being an old or a new house.

The general plan of a garden corner seat of this sort is adaptable to working out in rustic style

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

THE TRAINING OF OUR GIRLS

By Elizabeth Atwood
Photographs by Jessie Tarbox Beals

HOW many mothers are training their girls for the cares and responsibilities of life? I do not mean just caring for them, loving them to their injury by keeping all responsibilities out of their lives, but, by wise guidance teaching them how to meet such responsibilities, preparing them for that which is as sure to come as that we shall eat three times a day.

To begin with, what are you doing to create permanent "Ideals" for your daughters to strive for? Is your daughter finding sympathy and understanding in you, or does she have sympathetic friends outside, gradually drawing her away from you? Are you her comrade and confidante? Are you living your own life separated from your girls—and your boys too? These are questions each mother should ask herself, and then have a care that her life is such that they may be answered well.

The training of our girls is a very serious matter, and calls for self-training and self-examination on the part of each and every mother. Mothers are the examples which always influence even the baby. Right here is a large responsibility. Do you discuss your neighbor's affair? Remember that just so will your children do. Are you selfish? Then selfishness will influence your girls. Are you thoughtful, generous and sympathetic? So will it be returned to you. Oh, this mother business is a great one, calling for all the skill and love and wisdom you can accumulate.

We all know the courteous boy and girl, but do we know many such? Now just what is courtesy? Nothing but gentle, kind thoughts for all, which are bound to show in kind acts. Just think of how much the face reflects kind thoughts and the desire to serve others, and out of sheer vanity one would suppose girls would practice with increasing regularity until this love expression would be habitual. The ideal girl could not be rude. Too few show the kind smile that helps, too few reach out the strong hand and with courteous greeting make even the stranger feel at home.

But mothers must lead the way. Not in selfish absorption of their own particular loved one, who, of course can do no wrong, but in watchful care weeding out her own selfish tendencies (we all have them), putting in whole armfuls of love, truth and honesty, to build up their character. This is the ideal mother's task in hand. She must train herself if she would wisely train her girls. She must make her own "Ideals" worth her striving, before she is ready to lead her girls upward.

Discretion, I honestly believe is an "Ideal." How few possess the discretion which is really tact. A mother who recognizes this is a long way on the road toward peace. Someone once said: "What we never say or write will never cause us regret." The discreet girl will never be over-smart in her talk, lavish in money-spending, never argues, never criticizes, and, if added to this quality of discretion she is lovingly sympathetic, she is surely cultivating an "Ideal" well worth striving for.

Manners, too, become an "Ideal" to work for. Of course manners, to a certain extent are the reflection of what is inside, but surely capable of development. Carrying oneself with nose high in the air, is not indicative of superiority. In the hills of Vermont, I knew the greatest and sweetest of little ladies, who would have graced any court, and who brought joy and peace to any home she visited. She never studied any rules of etiquette, I am safe in saying, yet she practiced them all.

And what made her the lady? Just this, she was uniformly quiet and gentle. Her voice, like Annie Laurie's was low and sweet. She always had a kind word for everybody, and a smile which would lift your profoundest gloom, more than that, you felt rebuked for being gloomy in this beautiful world. I have never met another quite like her.

This is my understanding of her: First of all she felt a generous, great love for all humanity, and then she lived it. Her life was lived according to the Golden Rule, literally and truly. She was gentle because she had only the gentlest of thoughts for all.

Criticism is rampant in this age, and is death to love in its broadest sense. Cultivate generosity of thought in your girls—anyone can be generous in gifts—it will surely produce gentleness of manner.

The cultivation of the voice is also necessary. There are more hard voices now than soft and musical ones. There is more attention paid to singing than to talking; more attention to vocal gymnastics than to a well-modulated every-day and to-be-lived-with voice. Loud and noisy laughter is too often heard.

Loud voices do not mark the lady anywhere, least of all in public places. If girls only knew how much the quiet ones are admired there would be an age of quiet girls instead of the noisy ones demanding attention everywhere. Do not train for the appearance only of a lady, but like my friend in the hills, be one, with love and truth in your heart, feel and live like one, and your appearance and manner will reflect the glory. Is this not an "Ideal" worth striving for?

"The world delights in sunny people," but most of all in sunny girls. It is upon the shoulders of the mothers that this responsibility lies, for it is not all temperament. The mother, first of all must set the example of a cheerful countenance, even if all the irritating things of the house combine against her. If mother is snarly and looses her

An attractive after-dinner coffee set and a tea set of good design

temper easily when her girl reaches maturity she will, very likely, be just what her mother has been in these respects.

The girl who is constantly analyzing the motives of others, and her own actions as well, of a necessity is selfish. It may be because she is selfish that she is so critical. The two are closely interwoven, and this combination does not make the sunny girl. These are habits hard to get rid of and should be nipped in the bud. The woman who has this habit of criticism would hardly be charming, and that is what we wish our girls to train for. Do not let the habit of distrust grow in your girls, either of others or of herself. This too, is "Ideal."

Help your girls to a proper appreciation of themselves, not to make them vain, but to rid them of self-consciousness. Let them know that you see their good points of looks and that you appreciate their efforts, and you will not have the regrets to carry that I have. I always told my first children that if I did not criticise or correct they might be sure I was pleased. I never praised for that might lessen effort. Now I believe that it would stimulate effort. I never told them of their good points in appearance for fear of creating vain thoughts. I humbly apologize to those children of long ago, but that will not bring back lost opportunities for giving well-merited pleasure, for we do love to be appreciated. They say I am spoiling these other children!

Do not let your girl get the idea into her head that any work of the house is petty. If she does get it, help her to get rid of it at once. All of the ideals of life have a common center in the home. Can any part of the home-creation, even the dishwashing, have anything "petty" in it? When an ambitious woman is filled with real and true ambition she regards every act of the day as a stepping stone toward a greater and more important work. Discontent too often masquerades under the guise of ambition, luring its victim and blinding the eyes.

I think I have seen more discontent in the kitchen than anywhere else. Nearly every girl dislikes the daily routine of the kitchen, some like to do the pretty work of cake, candy and desserts. Yet, if a meal should be left out, and the dishes left undone those girls as well as the family would be disqualified for the larger things aspired to. Does not this prove how important a part of life is this work which some call "petty"?

To every woman who makes each little thing about the home of sufficient importance to lift it out of the feeling that such work is "petty," will come the larger opportunity, for she, her own little self, will have created it. Unless one can prove equal to the smaller duties how can one hope to master more important ones? Making the home attractive certainly is a great "Ideal," and everyone knows that "The way to a man's heart is by way of the stomach."

But the gravest responsibility of all the many responsibilities which the earnest mother has to bear and qualify for, to set the example for, is that of marriage. This work should begin in infancy. Health, strength, a proper regard for the body, must be all made into "Ideals" to work and strive for. Motherly sympathy at the crucial age is the girl's right, yet how often these girl children must go through this period unhelped save by injudicious help from outside.

"Mother" with all that the dear title implies should give her girl-child the knowledge which protects. Happy are the girls and boys whose parents understand and appreciate the most critical periods of their lives, and whose sympathies make them friends of all; who delight in hearing their confidences and encourage the coming together of the young people in homes where the games are most enjoyable that are shared by the parents. The mother should make her daughter understand that real love does not come for the seeking, but will come upon her unawares, and she must be ready and worthy of the honor. It comes because we go on working, making ourselves worthy of it, then it suddenly appears before us when we least expect it. It does not come to the woman who is seeking selfishly for all she can get out of life.

Without this true and holy love, a girl's life is in danger of becoming a failure. So it is in the mother's power to avert such a failure, if she can make home so attractive, herself so good a comrade, that her girls are held by the attraction of home-love until years of discretion are reached.

A suggestion for a simple table decoration. Clover and ferns

THE GERANIUM

(*Continued from page 292*)

water is required by them. The pots should also be "crocked," that is, the hole in the bottom should be covered with pieces of broken pots or something similar, so laid that they will keep the soil from being pressed solidly to the bottom of the pot, but at the same time will not stop the drainage hole. With ordinary care such plants will come through the Summer nicely, and will be ready to give the best of satisfaction in the house. Give them all the sunlight possible and plenty of air, especially at first. As the days grow colder and shorter, less and less water will be required. Give the necessary amount of water only when the soil appears too dry, and then soak thoroughly.

A FEW OF THE BEST VARIETIES.

There are now so many excellent Geraniums that it would be foolish to call any list, reflecting, as it must, individual taste, the "best." I mention a number of the tried and true sorts, popular everywhere and sure to do well under general conditions.

Of the double zonals, the common Geranium, there are in the "reds," *S. A. Nutt,* an old favorite and still more largely grown than any other Geranium for bedding, very dark scarlet; *Alphonse Ricard,* bright vermilion, extra large trusses on strong stems, free blooming, with foliage of a clean bright green—one of the very best; *John Doyle,* bright rich scarlet, fine for bedding; *Marquise de Castellane*, unexcelled for cutting, and one of the best for bedding; flowers are borne in enormous trusses held well above the foliage on stiff, strong stems, frequently twelve inches long. The color is one of the most pleasing of all Geranium shades, being a peculiar glowing, soft brick-red, varying light to dark. The blooms remain perfect a long time, and the color never fades. These blooms massed in a bowl, with a border of Mint Geranium leaves, make one of the most beautiful flower combinations I have ever seen. The plant is exceptionally vigorous and robust in habit, and easily grown. *Trego,* a bright flaming bedder, but not as reliable as some of the other sorts. Of the pure whites, my favorite is *Mme. Recamier*. The trusses are large, the color holds clean, and the plant is of good healthy growth. *Hedwige Buchner* is also excellent for bedding. For cutting or pots, *Fleuve Blanc* has the advantage of showing the individual florets, which are only semidouble, more clearly. *Madonna* and *La Favorite* are older sorts, still very popular. In the various shades of pink, *Beaute Potevine,* introduced a quarter of a century ago, is still the most universal favorite. Both individual florets, of a beautiful salmon-pink, and trusses are very large, and it is a very free bloomer, also exceptionally healthy and handsome as a plant, and good for cutting, bedding or in pots. *Dagata* is a newer sort, which is winning its way to universal admiration, in color, a beautiful mauve rose, spotted with white at the center. Among the best singles for bedding are *Paul Crampel,* bright vermilion-scarlet, with heavily zoned leaves; *Alice of Vincennes,* shading from white through crimson to deep scarlet margin; *Snowdrop,* pure white; *Mrs. E. S. Hill,* light salmon; *Nuit Potevine,* dark rosy purple. *Rival,* a soft dark salmon, and *The Sirdar,* intense scarlet, are especially good singles for pot plants.

The sweet-scented sorts are numerous. The *Rose, Lemon, Skeleton, Nutmeg* and *Apple* are all old favorites, with marked distinctions of fragrance or appearance. The *"Mint"* is not only the most pungent and distinct in fragrance, but the large leaves, of a mottled soft green, and beautiful thick velvety texture, are the most decorative in effect of any, and especially valuable to use with flowers in bowls or vases. *Lady Plymouth,* the "variegated rose," is very striking in appearance and should have a place in every collection. Among the sweet-scented sorts also valuable for their flowers are *Clorinda, Dale Park Beauty* and *Mrs. Kingsbury.*

Of the *variegated* sorts, *Golden Brilliantissimum, Mountain of Snow* and *Mme. Salleroi,* especially the last, are the most generally used for edgings. *Mountain of Snow,* single scarlet; *Silver-leafed Nutt,* double dark scarlet (see the illustration); *Mme. Languth,* double red; *Mrs. Parker,* double pink, are all desirable for their flowers as well as for their handsome foliage. *Sophie Dumaresque* is the most gorgeous of the "tri-colors," with flowers of very dark salmon. *L'Elegante* and *Duke of Edinburg* are variegated Ivy-leaved Geraniums of remarkable beauty, and should have a place in every collection and also be freely used for boxes and baskets.

Lack of space prevents a detailed description of the many good Ivy-leaved sorts, among which the most striking combinations and delicate shades of coloring in Geraniums, can be found. Alliance, Achievement, Ballade, Ceasar Franck, Pierre Crozy, Corden's Glory, Ryecroft Surprise, and Souvenier de Chas. Turner are all wonderfully beautiful plants, and worthy the attention of any flower lover.

In the "Cyclops" type some of the best are *Leon Baudrier,* carmine with white eye; *Jean Theraud,* very dark carmine with white eye, and *Mme. La Porte Bisquit,* immense bright red flowers with distinct white eye. The "Cactus" type is absolutely distinct from all the others, with a charm and beauty of its own. Small growing plants, but profuse bloomers, they are exceedingly attractive as a pot plant. *Firedragon,* bright red; *J. R. Greenhill,* soft pink; *Diabolo,* fiery scarlet, are some of the best of this, as yet, limited class. Still another section has been designated "birds-egg" Geraniums, on account of the peculiar dotting and spotting of the petals. *Abel Le Franck,* pale lilac, with carmine dots; *Rosamond,* deep rose dotted carmine; *Skylark,* pure white dotted rose; *Bandalaire,* rose dotted crimson, with white center, are some of the best of this very pretty and interesting class.

Let us give the Geranium more consideration! What other flower offers greater opportunities to the specialist or the hobbyist? Now is as good a time as any to get a plant or two of some of these numerous sorts. Care for them and work up a supply for the next year to your profit.

HOW TO INCREASE YOUR SUPPLY.

Geraniums are very easy to propagate, and, paradoxical as it may seem, this is one of the reasons why new varieties are so slowly introduced. The fact is that Geraniums are grown mostly by local florists, and new sorts do not get the advertising in seed catalogues, which they would if sold more extensively by the larger houses. There is, however, no excuse for any Geranium lover not to have a supply of the best varieties, as one plant bought this season should easily furnish a dozen for next Spring. The best time for taking cuttings is in the Fall or early Spring. They should be of new but *firm* growth, and prepared as illustrated on page 291.

The proper condition of wood is shown when it will snap on being bent. If it bends without breaking it is either too old or too soft. Let the cuttings dry for 12 or 24 hours after taking them off, but not enough to shrivel, before placing them in the sand. Keep shaded after planting, for a day or two, if bright, to prevent wilting. They root readily in sand of medium coarseness, kept moist, or by the "saucer" system—that is, immersed in sand placed in a soup plate or similar dish and kept constantly as wet as mud, and exposed to full sunlight. The best temperature for rooting is about 50 to 55 degrees at night. Pot off in finely sifted soil in 2 or 2½ inch pots as soon as the roots are a quarter of an inch long. Water well and shade them.

MAKING THE MOST OF AUTUMNAL FRUITS

By PHEBE WESTCOTT HUMPHREYS

THE chief of United States Bureau of Chemistry announced in a recent lecture, "There is perhaps no one problem which is more important to the people of the United States than domestic cooking." He might well have added that one of the most important forms of domestic cookery pertains not only to the preparation of food for immediate use, but also to a thorough knowledge of making the most of seasonable fruits for future use.

During the month of September the peaches and the grapes will demand the intelligent and comprehensive attention of the housewife, if she is to understand their possibilities in the form of desserts, salads, ices and sherbets for present enjoyment, and the best methods of conserving their richness for Winter and Spring enjoyment.

UNCOOKED PEACH DESSERT

There are few fruits more attractive than sweet, ripe, juicy peaches when served raw for desserts. The plain sliced peaches, covered with powdered sugar and served with cream, form a favorite dish that is quickly prepared. To give variety, the big soft peaches may be halved and pared (or skinned), the stones removed, and the centers filled with almond balls; each half set in a shallow white nest made of white of egg beaten with powdered sugar. One egg will prepare six big peaches, to be served in individual dessert dishes. Beat the white with powdered sugar until light and stiff, then beat the yolk separately, retaining with it a little of the white; sweeten with powdered sugar and flavor with almond paste to fill the centers of each; dot the yellow center with the icing, then form the white nest of icing around each half. Serve very cold.

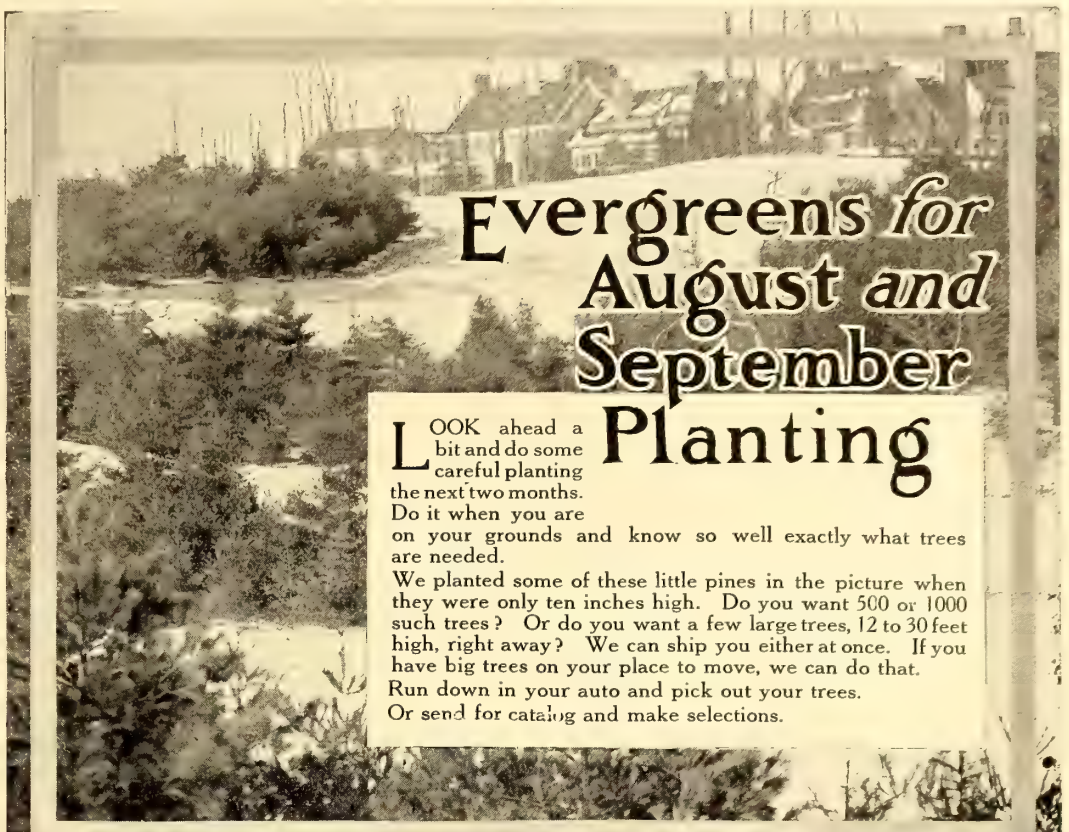
Another delicious form of serving peaches raw is in gelatine form, for quick dessert. Make a plain gelatine, following the directions on the box. When partially "set," stir in a good quantity of thinly sliced, well-sugared peaches. Have a layer of gelatine over the top; set in the ice box to harden, and serve with whipped cream.

PEACH PIE IN VARIETY

There are many novel ways of making peach pie, as healthful as they are meltingly delicious. There is no excuse for the ingenious housewife to continue in the old rut of making plain peach pie with upper and under crust, after grandmother's favorite recipe, if there is a dyspetic in the family who finds this form of dessert too rich. It must be admitted, however, that the two-crust peach pie made of flaky tender puff paste, and made fat and juicy, with a thick layer of ripe, sweet peaches, forms a dessert that will delight the most fastidious epicure.

Then, by way of variety, try the newer meringue pie. Line pie tins with a thin under crust of puff paste, and bake quickly to a delicate brown. Then pare, sweeten and hash a quantity of thoroughly ripe peaches, well sweetened with powdered sugar (a potato masher is a handy implement for quick and thorough mashing). Heap the crust-lined pie tins with a generous layer of the peach pulp and cover with the meringue, made by beating a large tablespoonful of powdered sugar with each white of egg, and spread a thin white coating over the entire surface of each pie.

A peach custard pie is another novelty, "invented" by a practical cook who is a genius in serving surprise desserts. It is made with an under crust of puff paste; on this is placed a generous layer of peaches sliced quite fine and sweetened; and over all is a layer of rich custard. To prevent



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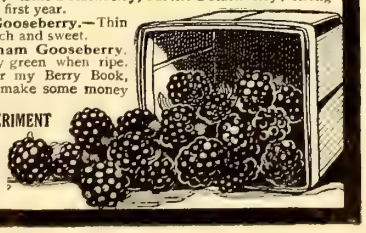

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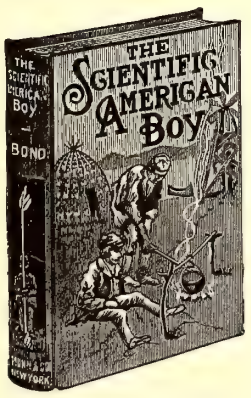

This is a story of outdoor boy life, suggesting a large number of diversions which, aside from affording entertainment, will stimulate in boys the creative spirit. In each instance complete practical instructions are given for building the various articles. ¶ The needs of the boy camper are supplied by the directions for making tramping outfits, sleeping bags and tents; also such other shelters as tree houses, straw huts, log cabins and caves. ¶ The winter diversions include instructions for making six kinds of skate sails and eight kinds of snowshoes and skis, besides ice boats, scooters, sledges, toboggans and a peculiar Swedish contrivance called a "rennwolf." ¶ Among the more instructive subjects covered are surveying, wigwagging, heliographing and bridge-building, in which six different kinds of bridges, including a simple cantilever bridge, are described.

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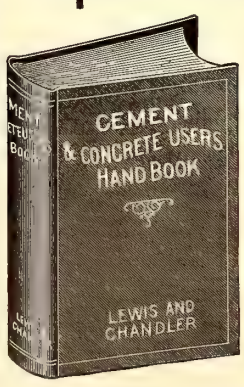

THIS is a concise treatise on the principles and methods employed in the manufacture and use of concrete in all classes of modern work. The author has brought together in this work, all the salient matter of interest to the users of concrete and its many diversified products. The matter is presented in logical and systematic order, clearly written, fully illustrated and free from involved mathematics. Everything of value to the concrete user is given. It is a standard work of reference covering the various uses of concrete, both plain and reinforced. Following is a list of the chapters, which will give an idea of the scope of the book and its thorough treatment of the subject:

I. Historical Development of the Uses of Cement and Concrete. II. Glossary of Terms Employed in Cement and Concrete Work. III. Kinds of Cement Employed in Construction. IV. Limes, Ordinary and Hydraulic. V. Lime Plasters. VI. Natural Cements. VII. Portland Cement. VIII. Inspection and Testing. IX. Adulteration; or Foreign Substances in Cement. X. Sand, Gravel, and Broken Stone. XI. Mortar. XII. Grout. XIII. Concrete (Plain). XIV. Concrete (Reinforced). XV. Methods and Kinds of Reinforcements. XVI. Forms for Plain and Reinforced Concrete. XVII. Concrete Blocks. XVIII. Artificial Stone. XIX. Concrete Tiles. XX. Concrete Pipes and Conduits. XXI. Concrete Piles. XXII. Concrete Buildings. XXIII. Concrete in Water Works. XXIV. Concrete in Sewer Works. XXV. Concrete in Highway Construction. XXVI. Concrete Retaining Walls. XXVII. Concrete Arches and Abutments. XXVIII. Concrete in Subway and Tunnels. XXIX. Concrete in Bridge Work. XXX. Concrete in Docks and Wharves. XXXI. Concrete Construction Under Water. XXXII. Concrete on the Farm. XXXIII. Concrete Chimneys. XXXIV. Concrete for Ornamentation. XXXV. Concrete Mausoleums and Miscellaneous Uses. XXXVI. Inspection for Concrete Work. XXXVII. Waterproofing Concrete Work. XXXVIII. Coloring and Painting Concrete Work. XXXIX. Method for Finishing Concrete Surfaces. XL. Specifications and Estimates for Concrete Work.

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the custard from becoming "watery," from contact with the fruit in baking, a little flour is mixed with the eggs and milk. To each egg allow a heaping teaspoonful of flour and one cup of milk. Beat the egg and flour together until light and creamy, add the milk, stir until thoroughly mixed, pour over the peaches, and pop into a hot oven where the custard will set quickly. Bake to a light brown and serve either hot or cold.

MOLDED PEACH DELIGHTS

In the form of custards, in individual molds, plain "peach delight" baked in a large pudding mold, and dainty individual desserts formed in dariole molds, a pleasing variety of luncheon dainties may be prepared during the season of fresh peaches.

For the molded custards, both the whites and the yolks of the eggs are used. Allow two eggs, one teaspoonful of flour, a cup of rich milk, and half a cup of sugar to each pint of peach pulp. Pare, mash and rub through a colander sufficient ripe juicy peaches to make one or two pints of pulp, according to the number to be served. Beat the yolks and a little of the whites of the eggs with the flour, add the milk a little at a time, and rub smooth; then add the sugar, and the smooth peach pulp. Butter the molds, fill two thirds full with the thick custard, and cover generously with the meringue made by beating the whites of the eggs to a stiff icing with powdered sugar; add a little almond flavor, bake quickly, and do not turn from the molds until very cold, just before serving.

If the hot custard is preferred for variety, bake just before serving, and do not turn from the custard cups when served.

A so-called "peach delight," which can be served as a novelty in peach shortcake (or as a rich baked pudding), is baked in a deep buttered pudding dish. Place a layer of sliced peaches in the dish, dot with bits of butter and a slight sprinkle of blanched almonds, chopped very fine, and covered with a thin layer of granulated sugar and a sprinkle of finely sifted cracker crumbs. Repeat the layer of peaches, sweetening, and flavoring, until the pudding dish is full. Make a rich pie crust of puff paste for the top, about an inch thick. Make several incisions in the crust, to allow the steam to escape. Bake in a moderate oven, and serve hot with creamed butter and sugar; cutting the crust in pieces as for pie, and heaping with the peaches and dressing. It is equally fine served cold with whipped cream.

PEACH DARIOLES

For the "peach dariole," make a syrup of half a cupful each of sugar and water. When boiling, drop in a quart of halved peaches, and cook until tender. When done select six of the finest unbroken halves, and rub the remainder through a sieve or colander to make smooth and free from lumps. Reheat the peach pulp, and stir in a teaspoonful of cornstarch (moistened with a little water) and the white of an egg. Beat the mixture together while warm, until it forms a stiff, smooth rich sauce. For additional flavor add extra sugar, lemon juice, or almond flavoring as desired. Butter dariole molds (or if necessary old teacups used for baking) place a half of peach in each, fill in with the sauce, cover with egg, and bake.

FOR WINTER USE

In putting up the peaches for Winter use, it should be remembered that the clear peach juice does not make firm jelly without considerable difficulty. A slight proportion of apple juice, about one fourth the quantity, will give good texture and flavor. The canned and preserved peaches, the

jam and marmalade can be "put up" (without apple juice) by the same processes that have already been suggested in these columns for other fruits. It is especially desirable to can great quantities; simply cooking big firm halves in sugar and water syrup; as the canned peaches may be used the same as the fresh, for Winter pies puddings and dumplings, and various novelties in desserts.

GRAPE NOVELTIES

Grape catsup and spiced grapes are culinary novelties certain to delight the palate in Winter and Spring, accordingly a goodly quantity should be prepared each Autumn. While much the same spices are used for each, the former should be rubbed smooth, through a sieve, and for the latter the grapes should be left whole. For the grape catsup, pick the grapes from the stems, boil in a little water until soft, then rub through a sieve, removing all seeds and skins, and to every six pounds of smooth pulp, add three pounds of sugar, one pint of vinegar, and one tablespoonful each of salt, cloves and cinnamon; boil slowly together until thick, bottle and cork while hot. Later, dip the corks and tops of the bottles in paraffine before storing in the dark preserve closet.

For the spiced grapes, allow four pounds of sugar and a pint of good vinegar, with two tablespoonfuls of powdered cinnamon, and two of cloves, for each five pounds of grapes. Tie the spices in a bag, and cook slowly with the grapes in the vinegar and sugar syrup. Cook down until rather stiff, and seal in glass jars.

GRAPE JUICE AND JELLY

Quantities of clear, rich grape juice should be bottled each Autumn for use in fruit sauce and sherbets, and in forming a delicious drink of appetizing and medicinal quality. In preparing the juice, use only the clearest, that drains through the jelly bag without squeezing; allow one pound of sugar to every three pints of juice; boil slowly until clear and rich, but not thick enough to jelly. Bottle while boiling hot. Have the corks previously boiled, and force them firmly to make the mouth of each bottle perfectly air tight. Finish with the paraffine coating. The secret of avoiding the objectionable "grape crystals" in the jelly, as well as in the bottled grape juice, lies in taking only the clearest of the first-running juice from the jelly bag; the final drippings, or juice squeezed from the bag, may produce disastrous results. None of this need be wasted, however, as all the pulp and "cloudy juice" may be utilized in rich grape jam. Partially green grapes are best in jelly—another important point to bear in mind. The "dead-ripe" grapes make a jelly lacking in tartness and spiciness of flavor, and one that is difficult to "jell." Allow one pint of sugar to every pint of juice, boil gently until it drips from the spoon in hot-jelly-texture. Pour in the jelly glasses. When cool, cover with a thin coating of paraffine and the usual tin caps or the paper covers.

GRAPE JAM PRESERVES AND MARMALADE

When there is a quantity of rich grape pulp, with a good proportion of juice left after securing the clear juice for bottling and for jellies, it may be used for the jam without additional fruit. Rub through a sieve and allow equal quantities of pulp and sugar; boil slowly until thick and well done, and seal with the paraffine and caps, either in jelly glasses or glass jars.

For the preserves to be cooked down thick, cook additional grapes—the partially green preferred—to add to the prepared pulp; remove all skins and seeds by careful straining.

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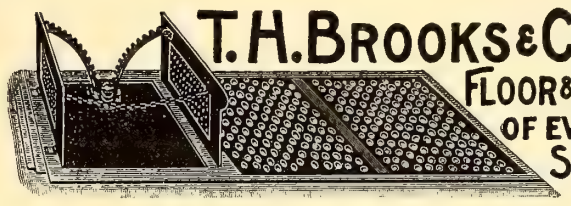
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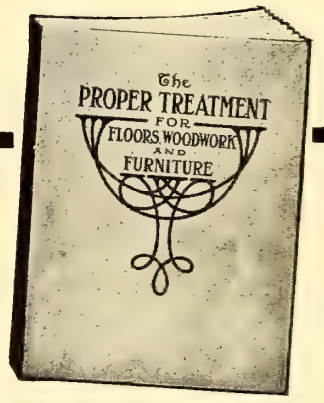

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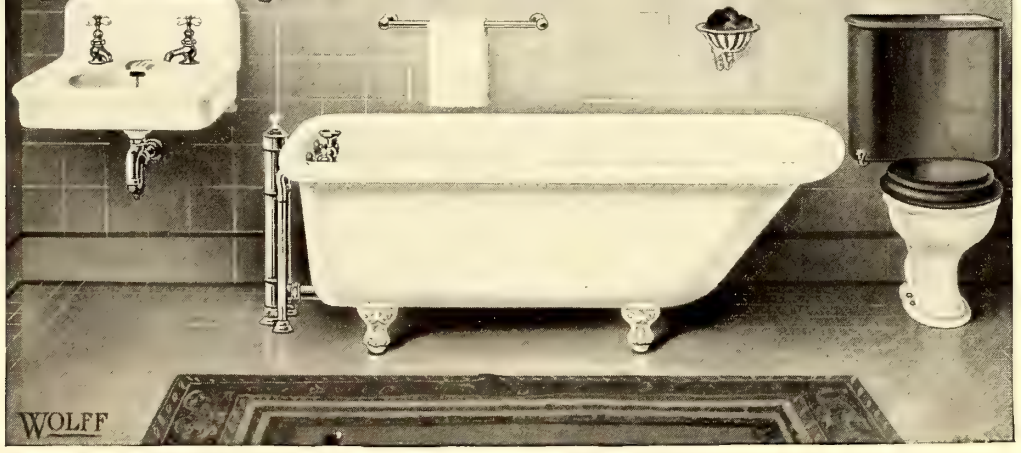

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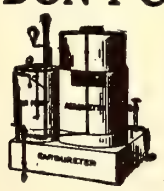

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THE MEXICAN KITCHEN

TO a person accustomed to the luxuriousness of an American kitchen, the crudity of a "Cocina Mexicana" is at first sight most disheartening, writes a contributor to *Gas Logic*. There are no conveniences or labor-saving devices, and the lack of these has almost proved the undoing of many a house-keeping novice in Mexico. The "brasero" which does duty for our kitchen range is a puzzle which some women never solve.

As a rule, the Mexican kitchens are clean, though you could hardly call them tidy. There are never any closets. The red brick floor gives a cheery look and the grass mats, called "petates," spread over the bricks lend an impression of cleanliness, the buff or blue walls forming a good background for the array of "ollas" or earthenware crocks, wooden spoons, and few iron utensils which are hung around.

The brasero, generally of blue and white tiles, is a long affair standing on medium high legs. Across the front are as many square openings as there are grates on top. Into the grates the charcoal is put, together with some pine splinters, the maid patiently working a straw fan back and forth in front of the lower openings, which correspond to the draughts in our ranges; after some time the charcoal ignites and a hot fire is started—a feat impossible to an amateur.

Upon the charcoal of each grate the ollas of various sizes are balanced. These are the cooking utensils of the country, and are made of a dark-brown, highly glazed clay, which heats quickly and retains the heat a long time. As the charcoal burns it naturally changes position, thus endangering the proper balance of the ollas, a condition not unknown to result in toppling the dinner into the fire.

For roasting meats and baking, a square tin oven is placed on top of the brasero, covering two or more of the grates in which a hot fire has been started. It takes a long time, with much fanning, for the oven to heat sufficiently, so that roast for dinner or a batch of fresh bread is no light matter.

INTERNATIONAL DECORATIVE EXPOSITION

AMBASSADOR Myron T. Herrick, of Paris, has been officially informed that the commission in charge of the International Exposition of Modern Decorative Art, which was to have been held in Paris during 1915, has decided to postpone this exhibition for a year in order to avoid its coinciding with the Panama-Pacific Exposition at San Francisco.

CURIOUS USES OF LIQUID AIR

AS a motive power for operating automobiles and motorboats, says *Leslie's Weekly*, liquid air is superior to the electric storage battery, since it requires no tedious waiting for the process of recharging and it delivers more than double the power of the former, with half the weight. Gasolene is not in the same class with liquid air, for the latter emits no noxious odors nor is there any danger of explosions. As a refrigerant there is no source of cold like liquid air. Other than operating automobiles and serving as a refrigerant, there is hardly a thing in the human mind can think of that liquid air cannot do, from providing a magical entertainment to the production of continuous power. Yet there is lacking a process by which it can be produced cheaply enough to compete with other sources of motive forces now in use.

THE PHYSIOLOGY OF THE TABLE

"WHEN customs become so universal," writes Dr. R. S. Levison in the *California Medical and Surgical Reports*, "as to have those of the civilized world in regard to the composition of the daily meal and the order of the various courses comprising it, they no longer excite our curiosity. Were one asked for the reason for our practices in the composition of an ordinary dinner he would probably state that custom had established the routine and would not for a moment think that there is good physiological reason for it. There nevertheless is. The discoveries in the physiology of digestion during the past dozen years have shown that there is scientific basis for our habits in the taking of food and that we have unconsciously established a routine of courses in the dinner that takes thorough cognizance of the physiological principles upon which digestion is founded.

"In more elaborate affairs than the ordinary dinner there is seen to be on analysis a purposiveness in our practices that may on casual observation seem to be entirely without physiological significance. Take, for instance, the elaborate gowns worn by the women and the evening suits by the men, the floral decorations, and the music.

"There is no doubt that each of these serves the function of composing a generally favorable stage setting as it were for digestion. It has been abundantly shown in recent years that a person's mood is of the greatest significance in the performance of the digestive functions. If one is in a happy state of mind, free from cares and worries of his professional commercial surroundings, digestion proceeds as it normally should; on the other hand, worry, angeh, and anxiety are potent factors in destroying the normal progress of the digestive functions. There can be but little doubt that such practices as we have mentioned tend to dispel any of these unfavorable moods that may be the relics of the care-laden day, and produce a frame of mind conducive to the normal progress of digestion.

"Coming now to a consideration of the composition of the meal itself, think how frequently the first course consists of some article of food which appeals forcibly to our sense of smell, as caviar, sardellen, anchovies, or smoked salmon. This practice is of course in accord with the principles of digestion first thoroughly investigated by Parlow, who showed in his wonderful series of experiments that the most potent factors in the production of a favorable flow of gastric juice are stimuli which appeals to the various special senses, chiefly smell and taste. Moreover, the taste of these articles as well as others commonly employed as one of the introductory courses of a meal, such as oyster, lobster, clam, or crab cocktail, salads, and the various relishes, is such as to appeal forcibly to the sense of taste and thus produce an abundand flow of 'psychical' gastric juice. The importance of the psychical influence of these articles of food will, I think, be at once appreciated by most individuals if they but think for a moment of such articles and note the ready flow of saliva which ensues. Though without any noteworthy amount of nutrative value, such foods are of great importance in digestion on account of their influence in inaugurating the flow of gastric juice.

"The second course in the usual dinner menu is soup, and here we again find substantial physiological reasons for its being placed where it is. Here also we are indebted to Parlow for the discovery of the fact that the only other stimulus to the flow of gastric juice besides the various appeals to the special senses, is a chemical one, and the most potent factors inducing this flow of chemical gastric juice are the meat extractives, which of course are the principal components of broths and soups. We thus see that there is a definite physiological reason for the introduction of broths and soups into the early stages of the meal,

"The *entree* which usually follows the soup apparently serves the rather negative purpose of merely consuming time for the acid gastric juice to be secreted in sufficient quantities to be in readiness for reception of the next, and, from the gastric standpoint, the most important course of the meal, the meat course; so far as gastric digestion is concerned, proteids, as represented by meat, are the most important articles of the meal, and it is the digestion of these for which we may consider the previous gastric activity to have been in preparation.

"Dessert is usually composed of entirely different food stuffs than are the earlier courses. Carbohydrate preparations of frozen foods composed chiefly of milk or cream, water, fruit flavors and sugar, compose the desserts usually found on the modern menu. Here again physiological research gives us an excellent reason for the placing of these articles at the end of the meal. Uutil within recent years the general medical as well as lay view of the stomach was a large hollow organ which by a vigorous churning movement mixed together all of the food stuffs introduced into it, and when this was sufficiently churned and mixed, expelled it into the duodenum. To-day we know that this is quite incorrect. Instead of there being a general admixture of all the matter taken into the stomach there is a layer-like arrangement in which the material first introduced takes a peripheral position next to the gastric muscosa, that subsequently introduced taking a more and more central position. Only the material which lies next to the gastric mucous membrane is acted upon by the gastric juice; when the latter agent has sufficiently acidified and pepnotized this, the slow wavy peristalsis of the fundus moves this peripheral portion into the pyloric antrum and thus the next layer comes into contact with the mucosa.

"According to this process, the food last taken into the stomach is thus placed most centrally and is in this way protected from the action of the acid gastric juice for as long as several hours. It is this fact which gives us the reason for the carbohydrate food stuffs being placed at the end of the meal. It is well known that the gastric secretions contain no ferments which act upon starch. Such a ferment, however, is contained in considerable quantities in the saliva, the so-called amylopsin. In the process of mastication and insalivation of the food, the amylopsin comes into intimate contact with the food particles and, given favorable surroundings, is able to effect a considerable degree of starch digestion, for quite some time after the food leaves the mouth. This favorable surrounding the carbohydrate dessert finds in the central position that it takes in the stomach contents, where it is well protected from the action of the acid gastric juice which, as is well known, would immediately destroy the activity of amylopsin, which is able to act only in an alkaline medium.

"We thus see that there is sound physiological reason for the arrangement of the meal as composed in civilized countries.

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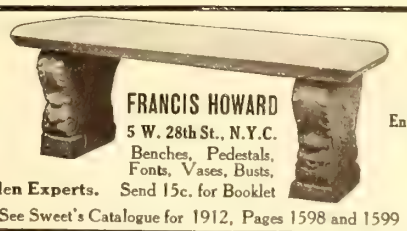
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In Scientific American Supplement 1605 Mr. Sanford E. Thomson thoroughly discusses the proportioning of Concrete.
Scientific American Supplement 1578 tells why some fail in the Concrete Block business.
Scientific American Supplement 1608 contains a discriminating paper by Ross F. Tucker on the Progress and Logical Design of Reinforced Concrete.

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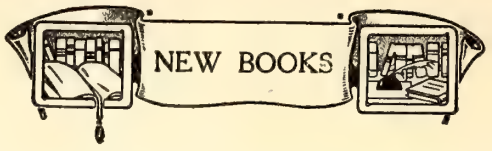

ARABIAN WISDOM. Selections translated by John Wortabet, M.D. New York: E. P. Dutton & Co. Cloth; 16mo.; 75 pages. Price, 40 cents net.

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THE RELIGION OF THE KORAN. By Arthur N. Wollaston, K.C.I.E. New York: E. P. Dutton & Co. Cloth; 16mo.; 70 pages. Price, 40 cents net.

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THE TEACHINGS OF ZOROASTER. By S. A. Kapadia, M.D. New York: E. P. Dutton & Co., 1911. Cloth; 16mo.; 104 pages. Price, 60 cents net.

The ancient precepts of the Persian prophet of the Parsis are clearly set forth in "The Teachings of Zoroaster," by Dr. Kapadia, who is an authority of the Parsi religion, and whose little book is one of the most interesting of the later volumes in "The Wisdom of the East Series," and will introduce the Western reader to a preparatory knowledge of the tenets of the great Persian moralist who lived and preached some 3,500 years ago.

THE WISDOM OF THE APOCRYPHA. New York: E. P. Dutton & Co. Cloth; 16mo.; 124 pages. Price, 60 cents net.

The selection of the two Apocryphal books of the Old Testament—The Wisdom of Solomon and Ecclesiasticus—which appear in this little volume accompanied by an introduction from the pen of C. E. Lawrence, has been made by the editors of "The Wisdom of the East Series," as presenting human documents reflecting the ideals and the philosophly of eastern wisdom. From this point of view there can be no question of the great interest and value of these books, not unworthy to be ranged, as literature, with "The Proverbs" and "Ecclesiastes, although not attaining equality of excellence with these accepted parts of the Canon. As the wisdom-books reprinted in the present volume give helpful strengthening counsel on the great and the little troubles, fears, comforts, questions which—all in a tangle and somehow—comprise human life, they should become less neglected than they are at present.

THE STUDIO YEAR-BOOK OF DECORATIVE ART FOR 1912. New York: John Lane Company. Paper. Large 8vo. Illustrated. 254 pp. Price, $3.00 net.

This is a pictorial review of the latest developments in the artistic construction in the decoration and furnishing of the house, It is planned to appeal to all who are interested in such matters. While the text is of no special importance, even meagre in its data at times, the illustrations are excellent and present a diversity of subject matters will worth careful attention.

INHERITANCE OF ACQUIRED CHARACTERS. By Eugenio Rignano. Chicago: The Open Court Publishing Company: 1911. Cloth. 8vo. 413 pages. Price, $3 net.

Professor Basil Harvey, the translator of this work, contributes to it a preface wherein he states that the author is a student of Biology who has also the training of an engineer and physicist. His attack on biological problems is from that side. In this book he offers an explanation on a physical basis of assimilation, cell division, and the biogenetic law of recapitulation in ontogeny, and he suggests a mechanism whereby the inheritance of acquired characters may be effected. This much discussed but unsolved question excites the keenest interest and the present work is a valuable contribution to the subject, the result of much original investigation.

FARM BOYS AND GIRLS. By William A. McKeever. New York: Macmillan Company. 1912. Cloth. 8vo. 326 pages. Price, $1.50 net.

The reviewer heartily endorses the purpose of this excellent book, in the preparation of which the author appears to have had in mind two classes of readers; namely, the rural parents and the many persons who are interested in carrying forward the rural work discussed in the several chapters on "Building a Good Life," "The Time To Build," "The Rural Home and Character Development," "The Country Mother and the Children," "Constructing the Country Dwelling," "Juvenile Literature in the Farm Home," "The Rural Church and the Young People," "The Transformation of the Rural School," "The Farmer and His Wife," "How Much Work for the Country Boy," and others. This is one of the most helpful volumes that have appeared in Macmillan's "Rural Science Series."

NORTH WALSHAM AND THE NORFOLK BROADS. By Florence Bohun. Yelverton (South Devon). By Edward Francis, New York: Frederick Warne & Co., 1911.

These are two newly-issued "Homeland" guidebooks, abounding in fine illustration and graphic description and maintaining in every way the high standard which the publishers have set themselves. Cheap in price and ephemeral as to concrete make-up, the little booklets may be tucked away in a pocket without compunction, yet are ever ready to yield up their exact knowledge and inspiring information for the benefit of traveler or shut-in. History, topography and present-day features of interest are alike charmingly unfolded.

THE SAYINGS OF CONFUCIUS. By Lionel Giles, M.A. New York: E. P. Dutton & Co. Cloth; 16mo.; 132 pages. Price, 60 cents.

This is a new and excellent translation of the greater part of the Confucian Analects. Confucius stands forth as one of the few supremely great figures in the world's history, and yet how little we have chosen to concern ourselves with anything about him beyond that fact. Professor Giles' excellent volume will enable the reader who has been neglectful in the past to make amends conveniently and briefly, since this little book, though small in compass, is rich in presenting to us glimpses of the philosophy of the greatest figure in Chinese history and of the man, Confucius himself.

ALASKAN REINDEER HERDS

THE report of the United States Bureau of Education records data received from the Alaskan reindeer stations for the fiscal year ending June, 1911, showing a total of 33,629 reindeer, distributed among 46 herds. Of the 33,629 reindeer, 20,071, or 60 per cent., are owned by 460 natives; 3,951, or 11 per cent., are owned by the United States; 4,663, or 14 per cent., are owned by missions, and 4,944, or 15 per cent., are owned by Lapps.

The income to the natives of Alaska from the reindeer industry during the fiscal year ended June 30, 1911, including salaries earned by service in connection with the herds, the proceeds from the sale of meat and skins, and the amount received by them from trapping and other sources, in connection with their duties with the herds, is estimated to have been $42,216.10.

In the course of the year six new herds were established by dividing some of the larger herds. Two parties of herders removed their reindeer from the herd on the Nuluk River, near Wales, and established new centers of the reindeer industry on the Mint River and on the Serpentine River. Other parties of herders removed their reindeer from the herd at Shishmaref, and moved to the Buckland River and to Good Hope. Herders also removed their deer from the herd at Sinuk to Cape Douglas, and from Quinhagak to Togiak. Two of the herds were discontinued, the Nulato herd being moved to Golsovia, and the former Shishmaref herd No. 3 to the Buckland River and Good Hope, as stated above.

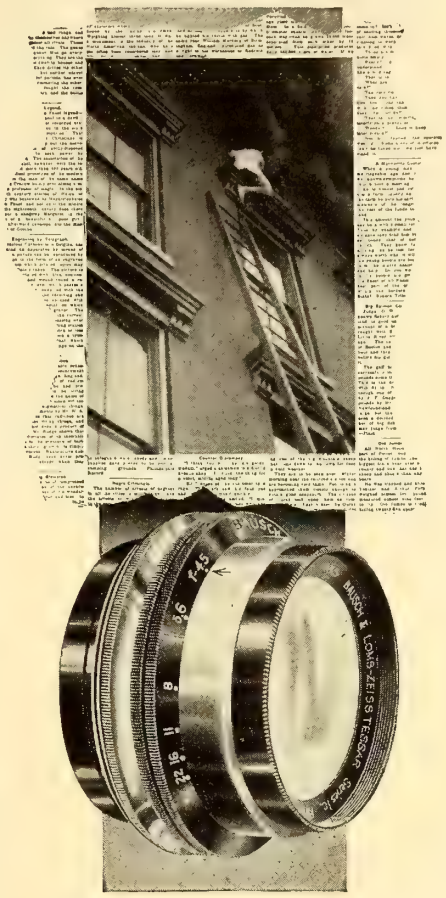
The most notable extension of the reindeer enterprise was the delivery to the Department of Commerce and Labor of reindeer for use in stocking St. Paul and St. George Islands, in Behring Sea. During August, 1911, the U. S. S. Bear received 40 reindeer from the herd at Unalakleet, 25 of which were landed on St. Paul Island, and 15 on St. George Island.

During 1909, arrangements were made with the Department of Agriculture permitting the exportation of reindeer meat, hides, and horns, under proper certification by the representatives of the Bureau of Education. It was not deemed wise, however, to encourage such exportation until the herds had increased sufficiently to supply adequately the local needs of natives and white men. Information having been received that the herds now furnish an ample source of supply of fresh meat to the native villages and towns in their vicinity, it was decided that the exportation could begin.

In October, 1911, the first shipment of reindeer meat left Nome for Seattle. It consisted of about 125 carcasses, purchased by a cold-storage company from Eskimo herders. This shipment of approximately 18,750 pounds found a ready sale in Seattle at prices ranging from 25 to 75 cents per pound, according to the cut.

It is estimated that there are in northern and western Alaska approximately 400,000 square miles of treeless regions, which are worthless for agricultural purposes, but which could furnish pasturage for 10,000,000 reindeer. It is possible that, with the present rate of increase, there may be in Alaska in less than 25 years some 2,000,000 reindeer, and that the United States may draw a considerable part of its meat supply from the reindeer herds in Alaska.

Influenced by the success of the reindeer enterprise in Alaska, in January, 1908, Dr. Wilfred Grenfell imported 300 reindeer from Lapland into Labrador. These had increased to about 1,200 in 1911. They are



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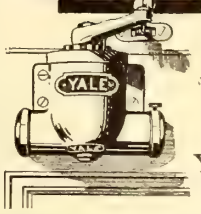

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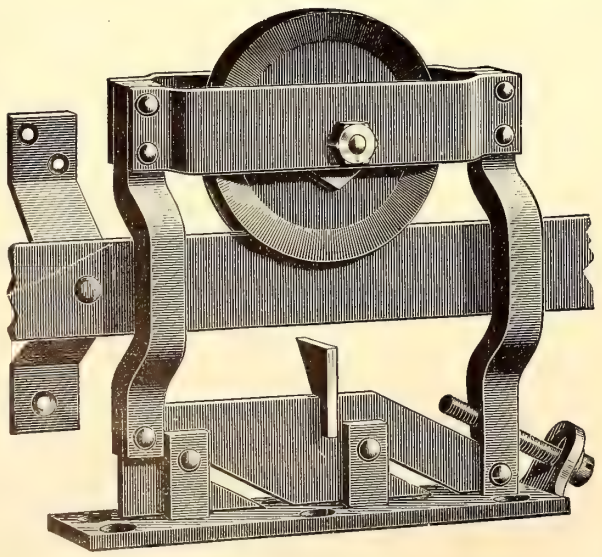

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now supplying many of the natives with meat and clothing. It is stated that in November, 1911, in order to introduce reindeer into northern Canada, the Canadian Government purchased 50 reindeer from Dr. Grenfell, to be taken from Labrador by boat to Quebec, thence by train to Edmonton, and finally on scows down the Athabasca River to Fort Smith, their destination.

THE FIRST JAPANESE IN THE UNITED STATES

ACCORDING to *The Argonaut* it is only seventy-five years since the first Japanese came to America. He was Manjiro Nakahama, a boy of fourteen, who was picked up by the captain of a New England fishing smack in 1837. According to the report of that time young Nakahama, with four other lads, had set out from the shores of Japan to do some deep-sea fishing. A violent storm came up and washed them ashore on an island far out in the North Pacific. For several months they struggled against starvation and exposure, but finally were rescued by the American captain. Three of the boys were left at Hawaii, but Nakahama stayed on board and became a favorite of the captain and crew. They brought him to the States and put him in a New England school. Later he returned to his native land, and when Commodore Perry arrived in Japan some years later it was Manjiro Nakahama, the shipwrecked boy, who acted as interpreter between the American envoys and the Japanese Federal Government officials.

SYRIAN EMBROIDERIES

THE manufacture of embroideries and embroidered linen handkerchiefs is rapidly developing in Syria. A few years ago these articles were sent exclusively to the United States, whereas now important shipments are made to several countries in Europe.

This industry owes its revival after the events of 1896 to the initiative, zeal, and philanthropic sentiments of two members of the American mission, Mrs. Shepard, wife of Dr. Shepard, head of the American Hospital in Aintab, and the late Miss Corinna Shattuck. This industry, starting from Aintab, the headquarters of the mission, has rapidly spread to the other cities, towns and villages of the Province, and now constitutes a means of livehood for thousands of women and girls.

SOUND-PROOF WALLS

ACCORDING to the London Globe, experiments have recently been carried out in Germany with the object of discovering methods and means for rendering walls and ceilings capable of effective resistance to sound transmission. One of the more recently devised methods involves the use under the ceiling, or parallel to the wall, as the case may be of a network of wire stretched tightly by means of pulleys secured into adjacent walls and not touching at any point the surface to be protected against sound.

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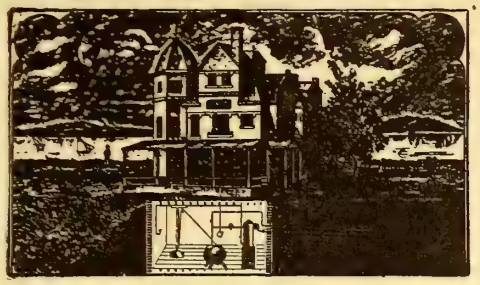

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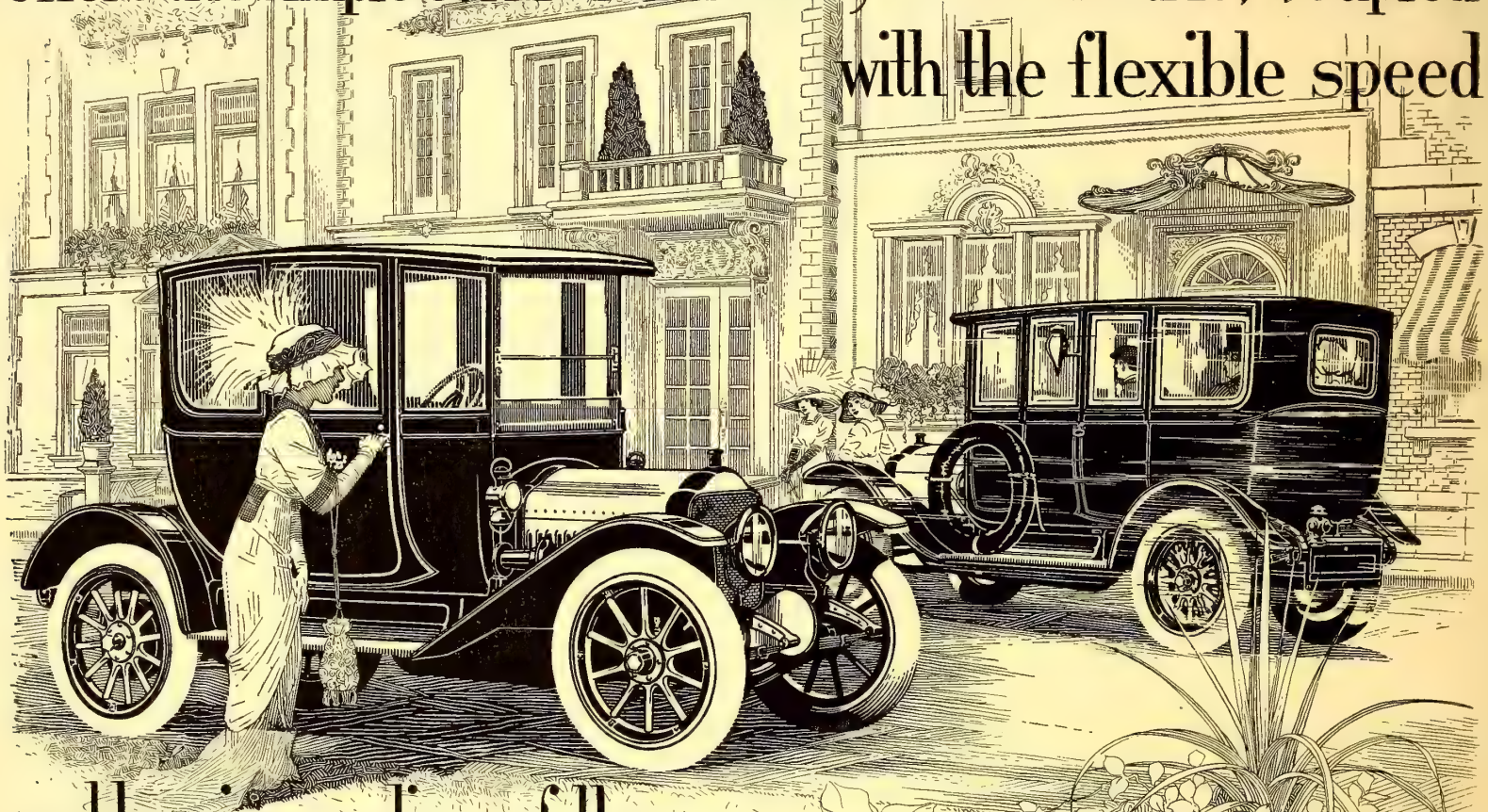

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FALL POULTRY WORK

By E. I. FARRINGTON

CABBAGES are not in as high favor for poultry feeding as formerly. They have a tendency to cause inferior eggs, and, some breeders say, eggs which do not hatch well. Green rations of some kind must be arranged for in the Fall, however, and cabbages are better than nothing. In any case, there is no objection to feeding them in small quantities. No wise poultrymen will suspend them by a string, though, so high that the fowls will have to jump for them. It is an old practice, but a poor one. There are much better ways of inducing the hens to take exercise. Often in the Fall it is possible to buy a number of heads of cabbage which are not good enough to market in the ordinary way, the cost being very little. They may be stored by digging a trench on the sheltered side of the barn or poultry house where they may be buried, care being taken to choose a well-drained spot. Leaves, cornstalks or coarse manure may be used to provide additional protection when very cold weather comes.

If a supply of mangels can be obtained, no other vegetable will be needed. The hens like them and they are easily fed by spiking them to a board, so that they will not be wasted.

Rye sowed up to the last of August makes a most economical green food if it can be given a place close to the poultry house. Then, when the ground is not covered with snow, the poultry may be allowed to have the run of the rye plot. Often, it is possible to sow a part of the garden to this crop.

Lawn clippings are a form of green food available in most suburban communities, and there is nothing better for the hens. They should be dried until they crackle and then packed in barrels or bags and stored in a dry place. A little rack like that used in stalls for horses may be used when feeding it, or a plan adopted in Pennsylvania may be followed. This plan calls for strips of one-inch chicken wire about two feet wide and three or four feet long. These strips are laid flat and covered with lawn clippings two or three inches deep, after which they are rolled up, clippings and all, and hung in the poultry houses where they can easily be reached by the fowls. In this way the waste is avoided which comes from throwing green rations on the floor.

Cut alfalfa may be purchased at the poultry supply stores if nothing less expensive can be obtained. It is fed to the best advantage when placed in a pail of hot water and allowed to steam until green and tender.

Sprouted oats may be had at any time by soaking the oats over night in a pail of water and then spreading them out in a box in a warm place, keeping them moist with the aid of a watering can, but providing drainage so that water will not

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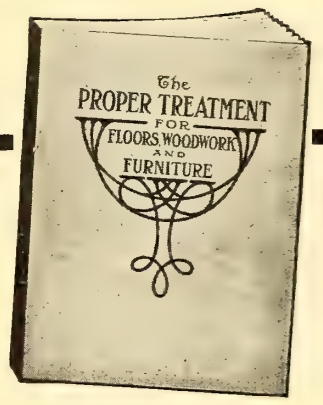

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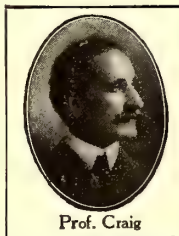

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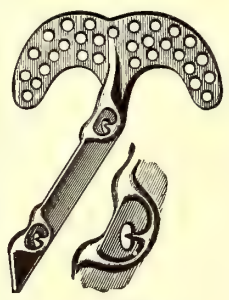

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stand in the box. Whatever plan is followed, the Fall work should include making arrangements of some kind for plenty of green stuff to be fed the hens during the long Winter months. Without this green ration, the hens will be likely to lay very few eggs. The hens ought to go into the Winter houses by the first of October, for the early-hatched pullets should begin laying eggs by that time. The houses should have been thoroughly cleaned, several inches of fresh sand placed on the floor, the walls, nests and perches sprayed with kerosene or some like prepared killer and any necessary repairs made.

If laying hens are to be moved, a good plan is to feed them lightly for a day or two before the shift is made, and then to throw a liberal supply of grain in a deep litter on the floor of the new house. Being hungry, the birds will be too much engrossed in searching for food to be fretted by the change in their environment.

Sometimes the pullets seem slow in beginning to lay in the Fall, in which case it is well to feed them a warm mash at noon three times a week, the mash consisting of equal parts of wheat, bran, middlings and ground oats, mixed equally by weight, with two pounds of beef scraps to every twenty-five pounds of this mixture, the whole being mixed only moist enough so that it will crumble in the hands.

If eggs still fail to appear, try feeding them a little fresh meat, or better still, a small amount of green cut bone. The former can be secured of the butcher, of course, but the latter is more difficult to obtain unless one has a bone cutter. There are places in many of the larger cities, however, generally in the marketplaces, where this green bone may be purchased ready for use.

Arrangements should be made for an abundance of litter to be spread on the floor of the poultry house throughout the Winter, adding more from time to time as it becomes trampled down hard, and replacing it with a fresh lot when it becomes badly soiled. In most sections it is possible to obtain any quantity of leaves in the Fall, and while leaves are not as good as straw, they are naturally much cheaper. Shredded cornstalks make good litter and a certain amount is eaten by the hens. The importance of feeding the whole and cracked grain in a deep litter has been well established. Hens must have exercise if they are to produce eggs, and scratching for a living is the kind of exercise which nature evidently intended them to take. When they are obliged to scratch for their grain they eat only a little at a time, the natural way, instead of stuffing their crops in a few moments of hurried feeding, to mope around for several hours afterward. It seems to have been established, too, that hens eat more when the grain is buried in the litter. The uncertainty as to what they will bring to view adds zest to their search; and the active, heavy-feeding hen is usually the one which lays the most eggs. Several kinds of grain are needed, corn, wheat, oats and barley being the staples. It seems remarkable that hens should have the sense of taste well developed, but that they have is easily believed when one observes that different hens pick out different grains as being, apparently, most to their liking.

The Fall work includes getting rid of the surplus cockerels and what old hens

may be left. It should also include culling out the inferior pullets if one can bring himself to that work. It really is better to Winter a flock of first-class birds than one which is much larger but made up partly of poor stock. The small, weak-looking and poorly-marked pullets should go to the block or to the hen collector along with the excess cockerels. Of course, there is no reason why a considerable number of cockerels should not be kept along to grace the family table from time to time, but they should be kept in a pen by themselves and preferably caponized, so that they will cease to be quarrelsome and otherwise troublesome.

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THE 'suffragette' in ancient Greece," says the *Dial,* "appears to have made her presence known as early as 392 B. C., the date of the performance of Aristophanes' comedy, 'Ecclesiazusæ,' or, as one might freely render it in English, 'The Female Suffragists,' or 'The Women in Town-Meeting.' This laughable picture of a feminized republic should be just now the timeliest sort of play for amateur presentation on the part of young ladies' dramatic associations. A recent meeting of the classical and archæological clubs of Mount Holyoke College was enlivened by the performance of this comedy by members of the senior and junior classes, under the direction of Dr. Mary G. Williams, the professor of Greek. So successful was this Aristophanic revival that the project is now favorably considered of producing a Greek play every year."

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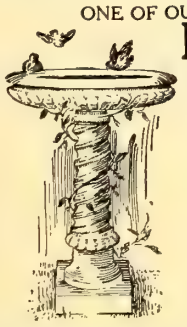

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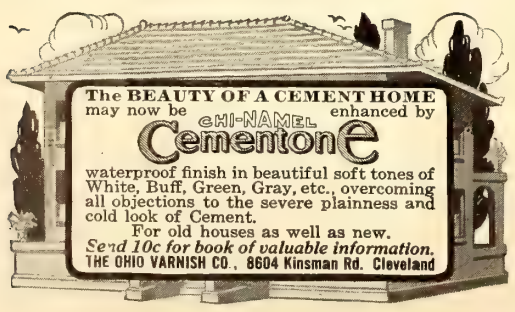

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LATE WORK WITH THE BEES

LATE September or early October is the time to begin getting the bees ready for Winter. If there is honey in the supers it should be removed, a very simple matter if the Porter bee escape is used. This device is set in the middle of a light board and allows the bees to pass one way only. The board is slipped between the super and the hive body late in the afternoon and a little smoke blown into the super. In the morning it will be found that nearly all the bees will have passed from the super down into the hive below, and as the bee escape prevents their return, the sections of honey can be taken away without interference. The hive should be kept open only as short a time as possible, though, or bees from other hives may come a-robbing.

If an examination of the colony shows that there is a lack of honey on the frames in the hive body, artificial feeding must be resorted to, for every colony should go into Winter quarters with honey enough to carry it through the long cold months when they will remain clustered within the hive, and yet requiring food. The amount should not be less than twenty-five or thirty pounds.

It is very probable that the amateur will not need to feed his bees, but if he does, he should use the best granulated sugar and an easy way to prepare it is to pour ten pounds into half a gallon of cold water, stirring until there is a thick syrup. Feeders of different patterns may be secured of dealers in bee supplies. A shallow tin pan containing several pieces of excelsior makes a good feeder. It should be filled with syrup and placed in an empty super over the hive. The bees can obtain the sweet liquid by standing on the excelsior. The last of September is none too early to begin looking to the wants of the bees.

When it comes to actually preparing the hives for Winter, the amateur who is supplied with double wall chaff hives will find little work to do. These hives are especially adapted to the needs of the beginner in bee keeping for that reason. It is only necessary to put on an empty super containing a bag filled with leaves.

When single wall hives are used, they will need covering if they are to be left ont-doors all winter, and it is not wise for the amateur to try wintering his bees in the cellar, as do many professional bee keepers. One well-known and successful woman bee keeper uses the following method, which is a good one to adopt. She puts a board cover lined with several thicknesses of cloth over the top of the hive and over that a strip of rubber cloth. Then she puts on a super, in which is placed a bag filled with cork chaff, leaves or other material. Finally another board is placed over all, and a wide strip of oiled manila paper tied over it, the paper being allowed to come down around the hives on all sides, being fastened in place with cords. Thus protected, the bees go through the Winter nicely.

If the spot where the hives are located are well-sheltered naturally, merely heaping cornstalks around them will be sufficient. In any case the entrance should not be covered, for on warm days the bees will come out for a cleansing flight. If snow covers the hives no harm will be done, so long as the entrance is kept open.

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CHEWING GUM IN CHINA

THE U. S. Government has this entertaining bit of news concerning the deplorable gun-chewing habit in a recent issue of the *Consular and Trade Reports*:

"Very little chewing gum is at present sold in China, at least that is true of the north. None of the business houses in Tientsin carry it in stock. This is because there are comparatively few Americans in China, and foreigners of other nationalities are not particularly addicted to the chewing gum habit.

There are perhaps 3,000 foreigners, excluding soldiers, in the various concessions at Tientsin. About 120 of these are Americans. The Japanese come first in unmbers and the British next; neither of these nationalities use chewing gum. Whether the Chinese would take kindly to it if it were introduced is a question that can be solved only by experiment.

The use of cigarettes in China is increasing rapidly among the natives, and it is possible that if the same methods were used to introduce chewing gum it would have a similar success. The British-American Tobacco Company entered this field several years ago. With headquarters in Shanghai, it has established large houses in each of the treaty ports.

From these traveling men are sent through the cities and towns of the interior, placarding the walls with huge illustrated posters printed in Chinese. These salesmen distribute sample packages of cigarettes on the streets, giving away many thousands as an advertisement, and then arrange with some native merchant to carry a stock of their goods. By these effective and energetic methods they have built up an enormous traffic which is steadily growing."

FORESTRY IN THE FAR EAST

THE following interesting data are quoted from one of the U. S. Government reports:

"Forestry is a subject in which the Chinese evince no interest, as there are no forests in this country. The Great Plain, on which Tientsin is located, never had forests, being entirely of delta formation, and the mountainous regions to the north and west were denuded of their forests centuries ago. The surface soil of these mountains has been washed away and to reforest them would be a matter of great difficulty. There is only one nurseryman in this consular district, at Tientsin, but he is much interested in tree culture. He raises various shade and ornamental trees from seed, but the soil of the Great Plain is alkaline and comparatively few varieties of trees will flourish in it. He has had the most success with the acacia.

A British corporation engaged in mining and shipping has a concession for coal mining in the Kaiping district, about 80 miles northwest of Tientsin. The surface of the region is broken by hills 50 to 200 feet high, which are absolutely bare of trees, and the company has begun the work of afforestation. It already has 1,000,000 young trees growing, chiefly acacia, and is preparing to establish a nursery for them on an extensive scale.

There are no Government forestry official, schools of forestry or horticulture, magazines devoted to these subjects or associations of forestry, nurserymen, seedsmen, etc., in China. At Tsingtau, German China, afforestation has been successfully carried on by the German Government."

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HOT WATER SUPPLIED BY AN ELECTRIC POWER PLANT

THE *Electrical World,* in a recent issue, described a progressive electric light plant which sold to its customers not only the current, but the exhaust steam that made the electricity; then on the demand of one of its customers, it collected the steam condensed and served the customer with hot water. As the company had no hot water main, a trap was set in the basement of the building to receive the condensate. This trap was arranged to tilt when it filled, and in so doing it closed the circuit of a two-horse-power motor which drove a pump that delivered the hot water for the customer's service.

THINNING THE FRUIT

By A. L. BLESSING

MANY professional fruit growers make a practice of thinning the fruit on their trees, and there is no reason why the amateur should not follow their example. Indeed, there is no other way to get fruit of the finest quality. This is especially true in growing peaches and apples, although it is worth while to thin plums and pears.

Sometimes it pays to remove half the fruit on a tree, if the tree hangs very full. Strange as it may seem, there will be just as much fruit as though no thinning had been done. The reason lies in the increased size of that which is allowed to remain.

Apple growers practice thinning to a less extent than the men who grow peaches for market. Thinning peaches is necessary in a year when the trees are bearing heavily in order to grow handsome, large and perfect specimens. The amateur will get just as satisfactory results if he thins his apples, too.

No two peaches or apples should touch. In fact, there should be two or three inches between them. Growers who are aiming to secure fruit of superior quality often thin to six inches. All obviously poor specimens should come off, as a matter of course. Then, additional thinning may be done in proportion to the grower's courage. Sometimes two thinnings are desirable, one when the fruit is small and a second when it is considerably larger.

The reason for the improved quality and larger size of the fruit when thinning is practiced is found in the fact that the most severe drain on a tree's vitality comes in the production of seeds. The real object of a tree is, of course, to produce seeds, and it expends its strength upon them. The grower, on the contrary, wants fruit, and gets it by the simple expedient of reducing the number of seeds which the tree is permitted to mature.

CATS AND DOGS IN MALTA

JAMES OLIVER LAING, American consul at Malta informs the State Department that many Americans have asked him to give names of breeders of pure blood Maltese terriers and cats. He says there are a few so-called Maltese terriers in Malta and they are not of pure blood. The puppies which the street hawkers offer for sale to tourists are more or less mongrel, with a strain of the old breed. Maltese cats do not exist in Malta, at least not one of the color called maltese in the United States, has been seen there.

THE Chilian Government has decided to spend $12,775 during this year for a cooking department in some of the professional schools.

THE EDITOR'S NOTEBOOK

THE FALL PLANTING NUMBER

OCTOBER is the month when the garden maker will find himself busied with the planting of perennials and with rearranging the hardy border. There will be bulbs to set out too, for the garden in early Springtime must be planned now as well as next season's Summer garden.

THE October number of AMERICAN HOMES AND GARDENS will be of great interest and value to the maker of the home garden, as it will be the annual Fall Planting Number, and although other features will by no means be neglected, especial emphasis will be placed upon gardening subjects in the October contents. The subject of "Fall Planting for the Summer Flower Garden" will be adequately treated in a handsomely illustrated article, forming a valuable supplement to the article on Spring planting which appeared in the annual gardening number of AMERICAN HOMES AND GARDENS for March, 1912. The garden maker not only wishes, as a general thing, to know how the flowers raised from various seeds will look, but quite as much desires to gain some conception of the grouped appearance of planting efforts when the garden will have reached its maturity. For this reason the reproduction of photographs that have been chosen to illustrate the article on Fall planting for the Summer garden have been selected with the purpose in view of giving the home garden-maker an adequate idea of the landscape-in-little effects of judicious planting, in the belief that lovely though flowers may be in themselves, and charming though wild-growing things may appear in their natural confusion, that garden cultivated flowers should invariably be placed in accordance with a plan that will enable them to enhance the beauty of any premises by an orderly relationship thereto.

BULBS for Fall planting will be the subject of a second authoritative article in the October number, contributed by one of the foremost writers on garden subjects in America. This will be exquisitely illustrated from photographs of some of the most beautiful bulb gardens in America. The home garden-maker who reads this article will be certain to find therein reliable information concerning what, when, where, and how to plant Spring flowering bulbs that may be set out in October.

THE article on "Brick Houses" by Robert H. Van Court will concern itself with brick as a suitable and attractive material for the building of a house large or small, and also will discuss the use of brick in connection with other building materials.

MARY H. NORTHEND will contribute to the October number an illustrated description of a most attractive house in Reading, Massachusetts. This will be accompanied by floor plans of the first and second stories.

ONE of the oldest and most historic houses in Philadelphia, "Mount Pleasant on the Schuylkill," will be described by Harold Donaldson Eberlein and illustrated by excellent photographs both of the exterior and of the interior of this interesting house. The double-page feature for October will consist of a collection of photographic reproductions of Pergolas in American gardens. These have been carefully selected from a country-wide range of trellis as being typical of the best garden art of this sort.

BEAUTIFUL California homes have always an interest for the Eastern as well as for the Western reader, and a delightful hillside house will be described in the October number, accompanied by floor plan and terrace plan and by exterior and interior photographs.

PHEASANT-RAISING is coming to be both a profitable and an interesting phase of country life development, and with this in mind the Editor has commissioned Mr. E. I. Farrington to prepare for the October number of AMERICAN HOMES AND GARDENS an illustrated article on this subject. The department "Within the House" will contain an article by Harry Martin Yeomans, entitled "Why Colonial" and the other departments, "Around the Garden" and "Helps to the Housewife," will, as usual, be of value and interest to the home-maker, who will find many other contributions throughout the pages of the Fall Planting Number fully worth while reading for its constructive worth.

SUMMER CHARITY

THERE is something about the thought of freezing to death that makes the average human being give more attention to charitable deeds in Winter time than in Summer, when nature seems, to the careless thinker, to be taking upon her own shoulders, more or less, the burdens of our brother's need. As the editor sits in his comfortable sanctum, cooled by the current of air industriously stirred by the indefatigable electric fan (sensibly placed to assist ventilation from open windows and yet without draughts which should be avoided even when the mercury mounts high in the thermometer tube), he cannot help thinking of the poor and the sick caught in the congestion of city life without relief from the excessive heat of some of the torrid days for which our large cities are noted. The Editor wonders if it would not be one of the truest acts of kindness for those in a position to do so to give electric fans to cheer the days of those invalids who cannot indulge in even so small a luxury. Think what that would mean to one shut in through the September days! The suggestion need not be thought impractical when one takes into consideration the fact that, nowadays, nearly all city flats are fitted with electric connections. Indeed, home aid societies and private charitable clubs might, to advantage, have electric fans to lend in emergency cases, which thus would also serve to bring comfort to many in rotation.

COUNTRY VS. CITY FOR HEALTH

IS life more healthful in the city or the country? On this often-asked question bulletin 109 of the census bureau sheds some light, says an editorial writer in the Chicago *Record-Herald*. It shows that in 1910, for the registration area of the United States, the death rate per 1,000 population for the cities was 15.9, while for the rural regions it was 13.4. This, *The Medical Review of Reviews* says, "is indicative of the lessened mortality rate in the rural parts of the registration states as opposed to the urban." The bulletin's figures show striking differences in city and country death rates from certain diseases, and on the whole, that chances of sanity, health and longevity are greater in the country than in the cities.

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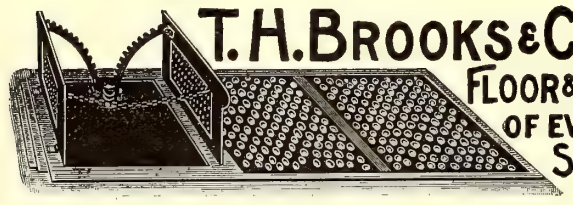

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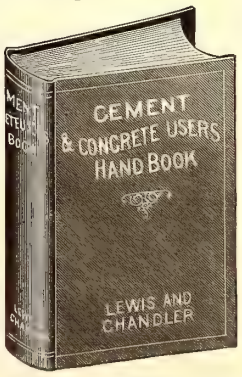

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BLOWING UP THE GARDEN

By H. D. E.

IT may be our wont to blow-up the gardener, to blow him up hard and often; we may also blow-up the cook or the coachman and, perhaps, we ought sometimes to be blown up ourselves. But how many of us, think you, are in the habit of blowing up our gardens, literally blowing them up with explosives? If we were to pursue this practice somewhat it might be more to the purpose than blowing up our servitors in a burst of temper.

Now this blowing-up is nothing more nor less than the scientific application of dynamite in the operations of farming and gardening. It is, possibly, a bit misleading to speak of blowing *up* when we really mean blowing *down* or blowing *sidewise*. If dynamite blew *up*, it wouldn't be of the least use in gardening. But just because it blows *down*, just because its action in exploding is downward and sidewise, it is of tremendous value, as has been abundantly proved by results.

A friend told the writer recently that he had been planting some trees with dynamite. A cartridge containing a proper charge was placed in a little hole at the desired spot and the fuse lighted. Standing thirty feet away, he distinctly felt the ground move under his feet at the moment of explosion although the loose earth was thrown upward not more than several feet and but a small quantity at that. The sod round about was raised but not broken.

This instance will serve to show what a powerful loosening influence is exerted by an explosion of dynamite. This loosening of the soil is the very thing that is needed to increase its fertility. It enables the roots of trees and plants to assimilate far more easily their chemical foods. The loosened soil allows the rain to penetrate more deeply and hence retains the moisture for a longer time. As plants can absorb their nourishment only in conjunction with moisture, this preservation of moisture means a more regular food supply and better nourished plants capable of withstanding drought because their source of nutriment far underground is not affected.

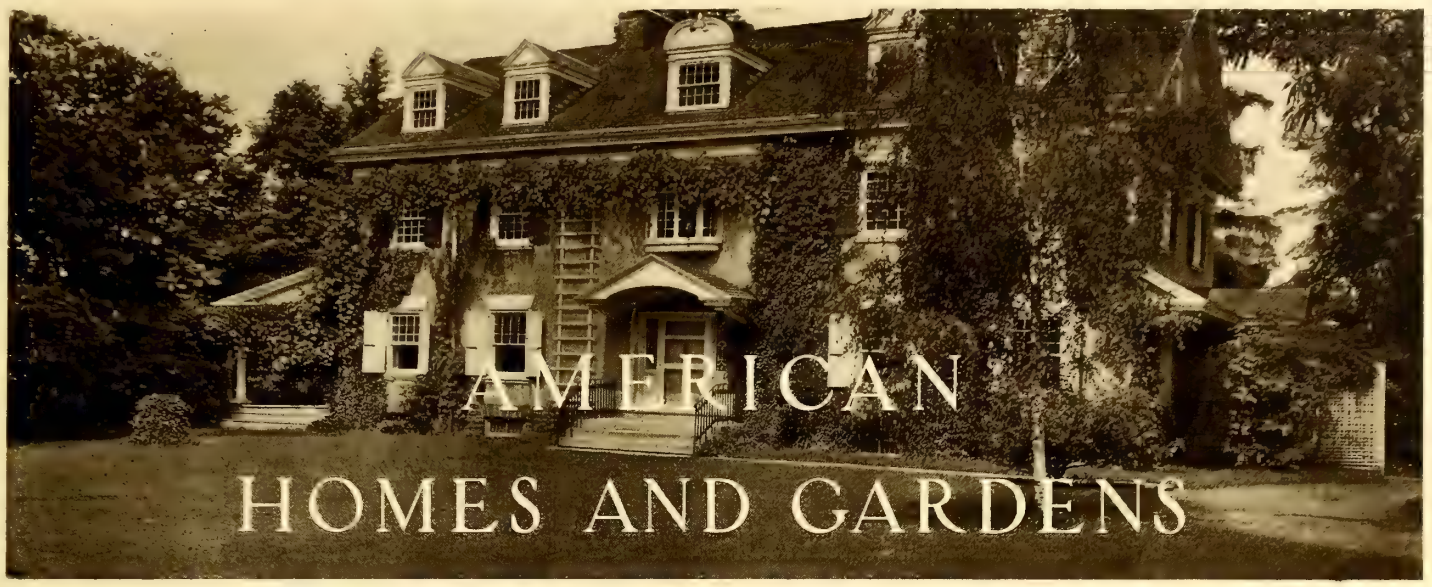
Ploughing (or, in a small patch, spading) is absolutely necessary; without it nothing could be raised. But the effects of ploughing extend downward only a short distance.

THE STABILITY OF THE SKY-SCRAPER

THE recent demolition of one of the first sky-scrapers erected in New York city was the occasion of a number of surprises to inquirers and scientific men and proved conclusively the stability of the steel construction frame, says a writer in *Harper's Weekly*.

Very many eminent civil engineers have contended from the outset that no steel frame could possibly escape rust and that sooner or later the building must collapse from this cause. The New York sky-scraper, however, was found in excellent condition, especially the steel part of it, which showed no signs whatever of deterioration from rust, although some of the rivets were slightly corroded. The paint, however, had almost entirely disappeared owing to some kind of chemical action. This proved the necessity of some better paint.

But the most surprising part of the examination was that the building showed the greatest stability just where the experts predicted there would be the most decay—that is, in parts surrounded by mortar.



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Fall Poultry Work — New Books — Editor's Note Book

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Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

Copyright 1912 by Munn & Co., Inc. Registered in United States Patent Office. Entered as second-class matter June 15, 1905, at the Post Office at New York, N. Y., under the Act of Congress of March 3, 1879. The Editor will be pleased to consider all contributions, but "American Homes and Gardens" will not hold itself responsible for manuscripts and photographs submitted

Photograph by T. C. Turner

In the future of civic planning the "down-view" will undoubtedly come to be an important thing to be taken into consideration

AMERICAN HOMES AND GARDENS

Volume IX — September, 1912 — Number 9

Aviation and Civic Improvements

By Harold Donaldson Eberlein

Photographs by T. C. Turner, W. H. Porterfield and Hugo Kühn

THERE is, truly, nothing new under the sun. Nothing new, at least in conception, even if the actual achievement be a thing of but yesterday or to-day. Lord Bacon unwittingly foretold the invention of air-craft and the navigation of the air by man when, in his "New Atlantis," he made the father of "Solomon's House" describe the "College of the Six Days' Work" and put into his mouth these words: "We have also engine-houses where . . . . we imitate also flights of birds; we have some designs of flying in the air." Then there was Icarus, who had a shocking bad tumble and lost his life because he rashly allowed his Dædalus propellers to get overheated and they came to pieces in midair.

It was left, however, to the men of our own day, fired with inspiration descending from Darius Green, to unite theory and practice and to accomplish successful flights, and that against strong odds of wind and weather. What with the progress made thus far in aeronautics and the enthusiasm impelling to ever fresh experimentation and improvement, we may rest assured that mechanical flying as a mode of human locomotion has come to stay, whether the future favorite type of air-craft be monoplane, biplane, dirigible balloon, or some other species of aerial vehicle not yet emerged from the inventor's brain. Since flying, then, is to be regarded hereafter as an orthodox method of traveling for those that fancy it, it is not unreasonable to infer that its advent is fraught with consequences of diverse import to us.

One of the ways in which we shall doubtless feel the new influence will be in the direction of architecture and city planning. With this inevitable modification in view, a few thoughts and suggestions will supply food for reflection. Of course, whatever one may say anent this subject must be considered not in the light of definite prophecy, but rather as a forecast of imminent probability. At any time, new features in the construction of air-craft may evolve that will alter appreciably the course of developments so far as we can now foresee them, but without venturing to predict too confidently, it is reasonably safe to assume that further growth will be in the direction already marked out. It is quite certain that the science of aviation is still in its infancy. All that has so far been proved is, that man can fly and is going to fly, whether he fly for mere sport or to serve some utilitarian purpose. This, too, notwithstanding the fact that only a few years since a very great mathematician proved entirely to his own satisfaction and the satisfaction of many others, besides that it would never be possible to leave the ground in a heavier-than-air machine.

The New York Post-Office as viewed from above its roof

Air vehicles are being used extensively in military tactics, also somewhat for the transportation of passengers in certain places abroad, and already, following improvements in design and structure, experiments have been made in putting them to various commercial uses, such as carrying light express matter, making short cuts over country unsuitable for railroads, and the conveyance of mails. Even if flying never advances to the position looked for it by enthusiastic and even by conservative persons interested in aeronautics, it can nevertheless reveal the blemishes, the inconsistencies, the objectionable spots in our cities and towns as nothing else will.

The passage annually of so many people through the air has supplied us with a new point of view whence we may look down and study the aspect of our surroundings. Hitherto we have felt that all was well if our buildings and cities satisfied inspection as seen from the ground. We

have, up to the present day, lived only on the *surface* of the earth. Therefore it has been but natural that we should design all our structures to be seen from the surface. Now, through the agency of aviation, our range of vision is vastly broadened and our point of view enlarged so suddenly that we can scarcely realize all at once the full measure of possibilities thereby opened up to us. It is almost as though a new dimension had been unexpectedly brought within our ken.

Some years ago appeared a work of fiction with the scene laid in a suppositious land inhabited by creatures capable of comprehending only two dimensions—length and breadth. Their world had only *surface*. Their outlook was latitudinal and longitudinal, but never upward or downward; in consequence they appeared incapable of either elation or depression. Doubtless, under such circumstances, existence must have been decidedly flat. At any rate, the inhabitants themselves were pictured by the author as flat as pancakes and as thin as shadows. A line drawn on the plane on which they lived and moved, and had their being, opposed to them a barrier more insurmountable than the highest peak of the Himalayas would be to a baby of the three-dimensional order. Anything rising above the surface of their plane world disappeared utterly as far as they were concerned and baffled their understandings as completely as some things do ours when they perversely roll off into the fourth dimension and become invisible. With our "surface outlook" at buildings and cities and the world in general we have been in the past not altogether unlike the plane dwellers. Now aviation has entered a wedge to change all this. Our point of view has gained "downlook" as well as the length and breadth and "uplook" it had aforetime. Hereafter we must reckon upon making our cities at least presentable, if not attractive, as seen from above. This new phase of requirements is going to affect individual buildings or groups of buildings in the first place, and, in the second, towns and cities in the entirety of their plan. It is but a logical and fair demand that a structure should be consistently comely from whatever point we view it; that is to say, it should be honest throughout in form and material and not speciously contrived to deceive the observer who can see it from only one side. We all know, however, to our regret that many a building that presents a noble front is commonplace and brummagem in the parts hidden from public gaze. It is right enough, generally speaking, to put the best foot foremost, but when it goes to the extent of having a "Queen Anne front and Mary Ann back," nothing could be architecturally more reprehensible.

A bird's-eye view taken from a dirigible balloon in Germany

The vantage point of the aviator unmasks the sham and dishonesty of all such buildings. He sees all too plainly their deceptions and pinchbeck economies and loses all respect for them when so deformed, because there is no sterling worth in them. He sees, moreover, the shocking backyards enclosed within blocks of houses whose street fronts are past reproach. Before his eye these household gehennas, that slovenly dwellers vainly flatter themselves are shielded from all beholders, are laid bare. At a glance he notes the boxes, the ash barrels, the garbage cans, and all the other unsightly, and quite unnecessary, rubbish that the carelessness of the negligent permit to disfigure space that ought, of right, to be given over to becoming adornment. All these things and many more the aviator sees, and as we are all future aviators potentially, we must now look to it that these blotches and eyesores no longer give offence. Shame at the thought of having our shortcomings mercilessly exposed, if not solicitude for beauty, should prompt our efforts toward remedy.

Aviation will grievously disappoint our expectations if it fails to work a drastic change for the better in the appearance of city roofs. As they are now, or most of them, at any rate, nothing could be more depressing, more distressingly, than the view from a tower or high office building—or of course an aeroplane—over the weary expanse of roofs spread out below. It is a dreary desert for "tarry pebbles and tin," broken only by an occasional skylight with its gleam of glass, or here and there an air shaft whose purple depths suggest bad ventilation and worse light. Now and again the round bulk of a water tank obtrudes itself, squatting in the midst of its own rectangular patch of slag or tin, or else painfully perched across the angle of the side walls carried up above the roof at one corner of the building.

A "down-view" in one of the lower districts of New York

Could any prospect be more disheartening and sordid looking? If the altitude of your position brings a sense of exhilaration, one glance downward at the doleful waste at your feet serves to dash your spirits to the depths. The only relief

comes either from scattered old buildings whose pitch roofs, covered with weather-green copper or decent slate or tiles, rejoice the eye, or else from structures of recent date where some regard for appearance from above has prompted a decorous treatment. One notable feature of these newer roofs is that the water tanks are not only not placed where they will be visible from the street, but they are enclosed in little house-like structures of suitable design so that they offer no offence to the sight.

Domes, towers and spires are all pleasant to look down upon, but on comparatively few buildings would this kind of embellishment be in keeping. We turn, then, to one other device that can be of almost universal application, the roof-garden. On the large hotels, roof-gardens by the score have flourished, and city houses and even country dwellings too are following the lead. In Summer the occupants of hostelry and dwelling alike find comfort and enjoyment amid growing things, high above the heated streets, while, for the aviator, the down-look upon these oases in a glare of heated roofs cannot be other than agreeable. It would be an ideal condition if every roof, or nearly every roof, could be equipped with a garden over at least a part of its extent. Think of looking over a city clad in verdure! What a pleasant place over which to aviate must Babylon have been with its hanging gardens!

The aeroplane will give man a new view-point from cloud-height

It is not at all a Utopian scheme to suggest domestic roof-gardens, but, on the contrary, perfectly practicable. We simply need the eye of the aviator to help us realize the waiting opportunities on our housetops and the possibility of making them attractive whether by the practice of aerial horticulture or by making them of such material and shape that they may be agreeable to behold. Provision will doubtless be made on some of the tallest buildings for landing stages and in time, too, we shall see hangars of many stories in height, treated architecturally as towers. By far the most important respect, however, in which aviation seems destined to influence civic improvement, is the planning and remodeling of cities throughout their length and breadth upon lines that will give consistency and coherence along with a convenient economy of space that will conduce to inter-accessibility

Illustrations, such as this one of old St. Paul's, New York, suggests the value in civic improvement of air views

The use of air-craft as a factor in civic betterment may be looked upon to develop a greater appreciation of the value of orderly roof designs among all sections. It is bound to give a wholesome impetus to the wave of municipal improvement that seems to have swept over the country since the appearance of the report of the Park Commission appointed by the United States Senate, to prepare plans for the development and beautification of the city of Washington. The elevated position of the aviator gives him a map-like view of a city and enables him to take in at a glance the sundry possibilities for betterment. Anyone who has stood on the top of Mount Royal, with Montreal spread out below him, may form a faint idea of the aviator's vision.

The advantage for getting comprehensive views enjoyed by the occupant of an aerial machine can easily be imagined when we remember that at the height of one mile he can see ninety-six miles in every direction and that the range of vision is limited only by height and the amount of haze in the atmosphere. By virtue of his altitude he gains a perspective denied the man whose goings are always horizontal. As a painter working on a large canvas, or a sculptor modeling his clay, now and again stands at a distance to measure effects, so may the city planner rise above his work and grasp in a twinkling the requirements of his problem.

It has already been pointed out that aviation reveals the iniquities of design, the squalor, the unsightliness in a city and all the other things that are generally unseen, though they may be within a stone's throw of us. These defects being brought to light, thanks to aeronautics, can be remedied. But more important still, it cannot be denied, are the impetus and inspiration thereby given, not alone for remedial schemes and remodeling, but for constructive planning of lines along which a city may make its future growth. There is no inherent reason why a city should be left to chance and individual caprice and not rather pursue its growth according to a well-ordered and rational design. A town of haphazard growth may indeed be picturesque, and often is, but its lack of arrangement usually means a prodigal waste of space as well as a daily waste of human time and energy. Such a town is apt to be incoherent, like a man beginning a speech in the middle of an involved thought. He struggles and strives to express himself, but cannot find the happy turn of words he needs. City planning by one man or by a group of associated men may be formal and academic, but in the end results will justify the practice. Three cities, Washington, St. Petersburg and Alexandria, were built according to the design of one prescient intellect, and they speak for themselves.

Only by deliberate, premeditated design shall we ever secure due provision for parks and gardens. Now to all phases of physical civic betterment, to remodeling and cleansing squalid districts, to the opening of avenues for the relief of traffic pressure, to the better designing of our roofs, to proper and efficient municipal lighting, to the intelligent establishment and treatment of parks, public gardens and waterways, aviation will supply a strong and ever-increasing stimulus by the very clarity and force of its revelations.

Aviation gives us a chance to look at ourselves from a new angle, and the sight is not always flattering to our pride; it is a bit like the power to "see oursels as ithers see us." However, the experience is wholesome if humbling, and if aviation is only a means to open our eyes and make us think and become dissatisfied with our shortcomings, it will have done a world of good. If we, ourselves, prefer to walk the earth like the old woman who said with true Malapropian felicity of phrase that "terra-cotta" was good enough for her, we must remember that many others are going to fly, and it is clearly our duty to adapt

ourselves to their broader horizon and provide things agreeable for them to look down upon as they flit overhead.

It is not unlikely that the roof will become an object of utilitarious solicitude. The ubiquitous advertiser of breakfast foods may find it to his advantage to proclaim the merits of his products on tar paper and tin. Just as the railway tourist is forever reminded by fleeting signboards mounted in meadows that no man can call himself clean who does not use Fulton's Soap, so the eye in the air will not be spared the announcement that the Isabel Monoplane is the fastest in the world or that the aerial garage of Hutchins lies six miles to the north, or that Pinkman makes the only trustworthy aeroplane motor. Roof signs may indeed be absolutely indispensable in order to guide the aviator. Hovering over a sea of red tin roofs how can he tell which is his? Some system of identification is obviously required. Even streets must be indicated. At night time electric lights of contrasting colors must be installed to guide the man in the air to his garage. It may be doubted whether the glare of our present towering electric signs will be tolerated. A locomotive engineer could hardly guide his train in safety if he were confused by thousands of electric bulbs, flashing rythmically as they proclaim the virtues of a new mineral water. In the interests of safety, then, it is not impossible that the electric roof signs at least must be dispensed with.

View of an aerodrome taken from a dirigible balloon

Since the roof is destined to become as important as the ground floor, we may expect to find in the hotel of the future, clerks and bellboys posted on the top floor ready to attend to the immediate wants of tourists who have just arrived by aeroplane. On the roof itself will be found the usual retinue of liveried servants. Porters in the uniforms of rear-admirals will assist aeroplane arrivals in alighting. Aerial taxicabs will circle like vultures over the hotel, waiting for a doorman to signal one of them to alight and pick up a departing guest.

The aerial garages of the future will not be unlike present automobile garages. They will be taller, perhaps, and even more generously proportioned; for a spread of wing of forty feet is by no means unusual in a flying machine. Elevators of corresponding size will convey the machines to and from the roof. The platforms of the elevators will have to be painted some distinctive color, so that those in the air may know what part of the roof is stable and what part is more like the trap-door of a stage.

The giant dirigible of the future, comparable in size with a Lusitania, will make great demands upon the ingenuity

(*Continued on page 336*)

Only from the "down-view" can one gain an adequate idea of a city's plan

The entrance front of "Meadow Court," the beautiful country home of Mrs. Charles S. Guthrie, at New London, Connecticut

"Meadow Court"

By Henry Stuyvesant Savage

THERE are few country homes in America more attractively situated than "Meadow Court," the property of Mrs. Charles S. Guthrie, at New London, Connecticut, of which Mr. William Emerson, of Boston, was the architect.

The house faces Long Island Sound, commanding a superb view, and one approaches the shore by a path and a roadway that lead through a meadow of some six acres. In the center of this is a beautiful natural lily-pond, which is starred with fragrant water-lilies throughout their season. Everywhere blooms an abundance of wild flowers, and from the time of the Wild Roses of June to the Asters and Golden-rod of late Autumn, this meadow, which suggested to the owner a name for the estate, is a riot of lovely color, a superb garden of Nature's own planting rivaling the man-made gardens elsewhere on the estate.

"Meadow Court" has its own strip of beach, and dock, boathouse and bathhouse, reached by the wilderness walk referred to above. Indeed, American home-builders are coming more and more to realize that when Nature has been generous in her gifts of landscape features, ponds, trees, vines, shrubs, rocks, wild flowers (even though they may be but distant echos of the forest primeval), the ground of an estate will be far more attractive if planned and laid out in accord with these natural features instead of being sacrificed to formal arrangements, ingenious though these latter may be. Happily, "Meadow Court" has preserved to the land that surrounds it all the delightful features that makes a tramp through the woods an incomparable pleasure. The house itself occupies the center of the estate, and the flat area through which it is approached by the drive from the roadway is beautifully laid out with velvety lawns, hardy borders, Rose gardens, and beds of beautiful blooming plants, many of which, as danger of frost appears, are removed to the spacious greenhouses.

The ivy-framed arches of the porch at Meadow Court

The greenhouses of "Meadow Court" are one of the most interesting adjuncts to the estate, reached

The long rustic arbor

by the long rustic arbor, thickly overgrown with vines of rich, glistening green foliage, and with climbing Roses, Crimson Ramblers, Dorothy Perkins and the like, which fill the air with fragrance throughout the month of June.

"Meadow Court" is the embodiment of the ideas of what a house should be, skilfully worked out by the architect. The architecture suggests the Spanish motif, but always with restraint. Both façades of the central portion of the house are Spanish in the character of their design, and the diverging wings at either end of this central part give to the partial court thus formed somewhat the effect of a patio. The large area covered by this beautiful country house suggests the breadth and spaciousness of the old houses of Spain, Mexico and Southern California.

The plan of the house, which follows a half circle, is unusual. Every room in the house has a fine view from its windows, either of the water of the Sound or of the gardens. A cloister-porch, slightly raised from the ground level and floored with long narrow bricks laid in herring-bone pattern, surrounds the court-like entrance area on the three sides. From the entrance doorway one comes upon the large living-room, some thirty by forty feet in dimensions. Three great windows face the water and the central one presents a wonderful picture, framing the view, as it does, by a solid pane of glass six by ten feet in size and unbroken by leading. Through this "picture window," as it has come to be known, one has constantly before the eye a panorama of moving yachts, great and small, and innumerable craft of all sort plying in and out of the harbor. Other windows of the living-room open to the floor and are fitted with casements which open directly upon broad and spacious verandas which are paved with brick, and which during the warm days of Summer and early Autumn are delightfully cool and attractive, for their low Spanish arches are closely

Steps in the rock garden

It is a relief to find a living-room in a house of the proportions of "Meadow Court" uncrowded by an array of over-sumptuous furnishings

A sitting-room, "Meadow Court"

The dining-room at "Meadow Court"

covered with clinging ivy and many kinds of flowering vines. The ceiling of the living-room is beamed in a manner which is at once rich and extremely simple and which recalls the ceilings of certain old Franciscan refectories in California. Walls are wainscoted with paneling of the same dark woodwork and the space between the wainscoting and the open ceiling is covered with a fabric which with its roughness of texture offers just the background required for the pictures and other adornments with which the room is filled.

Soft Oriental rugs cover the floor and about the fireplace. At one end of the living-room are grouped broad divans and deep-cushioned chairs which invite comfortable lounging. Upon a wide study table are tall metal candlesticks fitted with shades of soft shirred silk which reflect the electric light upon books, magazines and writing materials. More illumination is supplied by four old altar lamps which have also been fitted for electric lighting and which are hung with befitting formality from the crossings of the heavy beams of the timbered ceiling.

Upon the lower floor of "Meadow Court" are also a drawing-room, billiard-room and study, together with the dining-room and service quarters in keeping with an estate so ample and complete. The dining-room walls are covered with a fabric showing a pattern in which leaves and foliage in their natural colors appear. Cretonne or taffeta of exactly the same pattern and coloring is used as hangings,

(*Continued on page 336*)

The shore front of "Meadow Court," as seen from the lily-pond bordered by the road to the boat-house

The art of the Japanese gardener, here fully typified, takes into account the symbolism of every tree, plant, shrub and stone

The Art of the Japanese Gardener

By Harold J. Shepstone

ALTHOUGH the erection of so-called Japanese gardens has become a fashion all over the country, it is doubtful if there are many to which this title can be truthfully applied. Because a corner of the garden boasts of a stone lamp and little stepping stones, and a certain "Japanesy" mien, we are apt to imagine that it is entitled to this claim. But from the Japanese point of view that nook, beautiful though it is, has no claim whatever to the description. It is not akin to any of the historic schools of gardening established generations ago in Japan. It has, indeed, no real form as understood in these subtle schools.

The fact is, few Occidentals have ever been able fully to appreciate the marvelous symphonies which the Japanese garden-artists have learned to produce as a matter of heredity through a long progression of centuries. No stone is selected without not only careful consideration as to the place it is to occupy, but the special symbolism which attaches to the particular geological specimen laid down. No tree is planted without deep thought as to when its frontage will be at perfection, and how that perfection will affect the foliage in its immediate vicinity. The light and graceful are shown against dark masses of other trees. Deep shades find a fitting background against lighter leaves, and an impression of wonderful perspective is conveyed by the whole.

A Japanese lantern

What the Japanese gardener aims to create is not a flower show, or a pretty effect in blooms, but the spirit of a landscape, the memory of a well-beloved corner of the country, and at the same time express some sentiment or pleasurable fancy. Indeed, the grand old landscape gardeners—those Buddhist monks who first introduced the art to Japan—held it possible to express moral lessons in the design of a garden, and to embody abstract ideas, such as Chastity, Faith, Piety, Content, Calm, and Connubial Bliss.

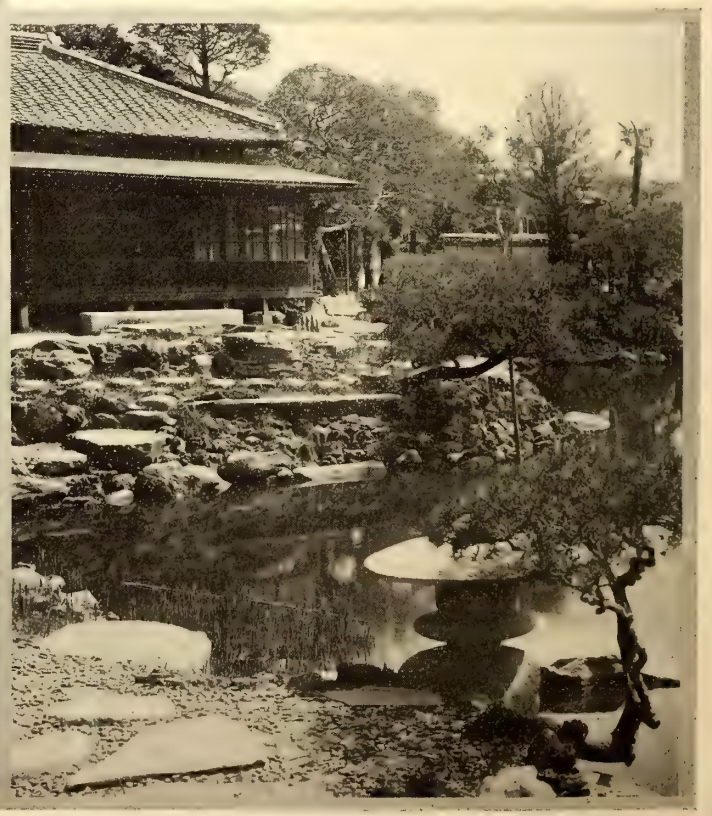
Therefore were gardens contrived according to the character of the owner, whether poet, warrior, philosopher, or priest. In these ancient gardens there were expressed both a mood of nature and some rare Oriental conception of a mood of man.

In Japan, the erection of the garden is governed by scrupulous attention to æsthetic rules. Consideration of scale, proportion, unity, balance, congruity, and all that tends to produce artistic repose and harmony is carefully preserved throughout the design. Each garden is planned as a writer plans a drama or a sonnet, or an artist a picture. There are precise rules for the securing of suitable perspective as well as for the fitting indication of height and distance. Every detail is as gravely formulated as are the items of a ceremonious ritual. The outline of a lake is determined by accepted types, not by mere whim. Each island in the pool follows a familiar model. There are the "Master's Isle" and the "Guests' Isle" for the inland lake, the "Wind Swept Isle" for the sea. The lake islands will have bridges, but the sea islands will have none of these.

Rock work in a Japanese garden

Every stone employed in the garden must conform to an established figure. There is a form for the "Kettle Stone" on which the tea is made, as well as for the "Shoe-removing Stone" and the "Children's Stones." To build a rockery of burnt bricks and clinkers after the manner of the American gardener, would be to the Japanese an offence beyond imagining. There are many ways of placing stepping stones, but in Japan each way is determined by rigid canons of the art. A water-worn boulder could only be employed in connection with water, real or suggested. It is the same with the trees and shrubs. Their disposition is ruled by a definite scientific plan. It means that trees and shrubs of light foliage are invariably thrown up against darker leaves. The same procedure is adopted in the placing of the semi-circular bridges, the dwellings, the restful arbours and the sacred shrines.

In one of the temple grounds at Kyoto, the old capital of Japan, may be seen what is considered by many as the finest example of the Japanese gardener's art. It was built by Anshu. He only undertook the work on three conditions, namely, that no time limit was imposed, no restrictions as to expense, and no interference whatever until the whole work was completed. It is even said that he went so far as to exclude the owner from inspecting his creation during its inception period. Anshu spent fifteen years in his task, but it is a really very beautiful piece of work. It is not a large garden, only covering a few acres of ground, but in this space has been brought together, with marvellous faithfulness and accuracy, reproductions of the



The Japanese gardener aims to make every garden vista pleasing, but never sacrifices harmonious arrangement to the merely ingenious

principal beauty spots of Japan. There is another old garden in Kyoto, famed for its pond. Around its banks are some hundreds of smooth, oblong stones. When the garden was in course of erection word was sent to the feudal lords of the different provinces throughout the country to contribute certain shaped stones. These were gathered together, wrapped in cotton, and carried by messengers to Kyoto.

It has been said by many that what they miss in the Japanese garden is the flower. The fact is the Japanese artist sets more value upon stones, water and hills than upon flowers. Flowers in a bed all packed together seem to him an outrage. Nothing he regards as more gross than the sight of huge flower beds crowded with bloom. A garden with us means as a rule a flower garden, but not so in Japan. To really comprehend the beauty of a Japanese garden it is necessary to understand—or, at least, to learn to understand—the beauty of stones—not stones quarried by the hand of man, but of stones shaped by nature only. Until you can feel, and keenly feel, that stones have character, that stones have tones and values, the whole artistic meaning of a Japanese garden cannot be revealed to you. Large stones selected for their shape may have an æsthetic worth of thousands of dollars; and large stones form the skeleton, or framework, in the design of old Japanese gardens.

Much has been made of the fact that the Japanese are capable of creating a landscape effect upon a tiny scale. I have in mind a tray in a friend's garden, measuring twelve feet by seven feet, containing a beautiful piece of miniature landscape gardening of the old style, the creation of an expert in Shiba Park, Tokyo. In a lake with irregular coast line, small pine-clad islets are so placed as to recall the matchless scenery of Matsushima. Towards the left-hand side of the lake, beyond the red-railed bridge, stands a shrine, in front of which is a waterfall indicated by "Taki" stone—the natural markings of which give a remarkably accurate representation of falling water. On the right-hand side of the lake the romantic nature of the scenery suggests Mijajima—one of the "jewels of the Inland Sea"—together with an exact reproduction of the far-famed Temple of Kinkakuji (Kyoto), whose supporting posts stand in the lake in such a way as to give it the appearance of floating on the water. The architecture and details of this ancient building are faithfully modeled on the original, even the stones and plants assuming the tint of a thousand years, and the tiny pine trees and shrubs so lavishly used are all venerable in the extreme.

A Japanese garden tea-house

But the question of area is absolutely optional to the Japanese. A landscape effect will be equally as well reproduced upon a large scale

Water areas play an important part in planning real Japanese gardens, and the native gardener exercises great skill in their arrangement

In Japan the home garden maker utilizes small space to good advantage, as may be seen by the arrangement here illustrated

as upon a small one. But here it should be noted that whereas we have only attempted landscape gardening on a large scale, the Japanese have adopted it to every garden, irrespective of size. And the practical question is whether the owners of small gardens could not profit by practising this art. Imagine what could be done upon a rectangle say twenty feet by twelve. Upon this space one could create a real landscape; a range of the Sierras might rise; and from the windows one might look down into "still waters between walls of shadowy granite in a gleaming pass."

Again, a study of the art of the Japanese gardener certainly emphasizes the fact that it is not necessary to accept flatness in a garden. A hill can be made by the very simple device of digging out the ground; and a lake or sunken garden is manufactured simultaneously by the same cut. After all, this landscape idea is common to all nations, and here the Japanese teach us that a landscape, with a true perspective of its own, can be created anywhere on any scale. Water is often one of the cardinal beauties of the Japanese garden, though it is not essential. It can be dispensed with, but it is very much easier than most people imagine to provide water on a small scale. I know a tiny garden in the heart of a great city which has two ponds,

(*Continued on page 336*)

One of the most perfect examples of Japanese gardening in all its native glory. This lovely garden is not far from Tokio

It is easy to imagine the quaintness and beauty of this "garden front" when the beds will be filled with flowering plants and the lawn in order

A House Set in a Garden

By Robert H. Van Court

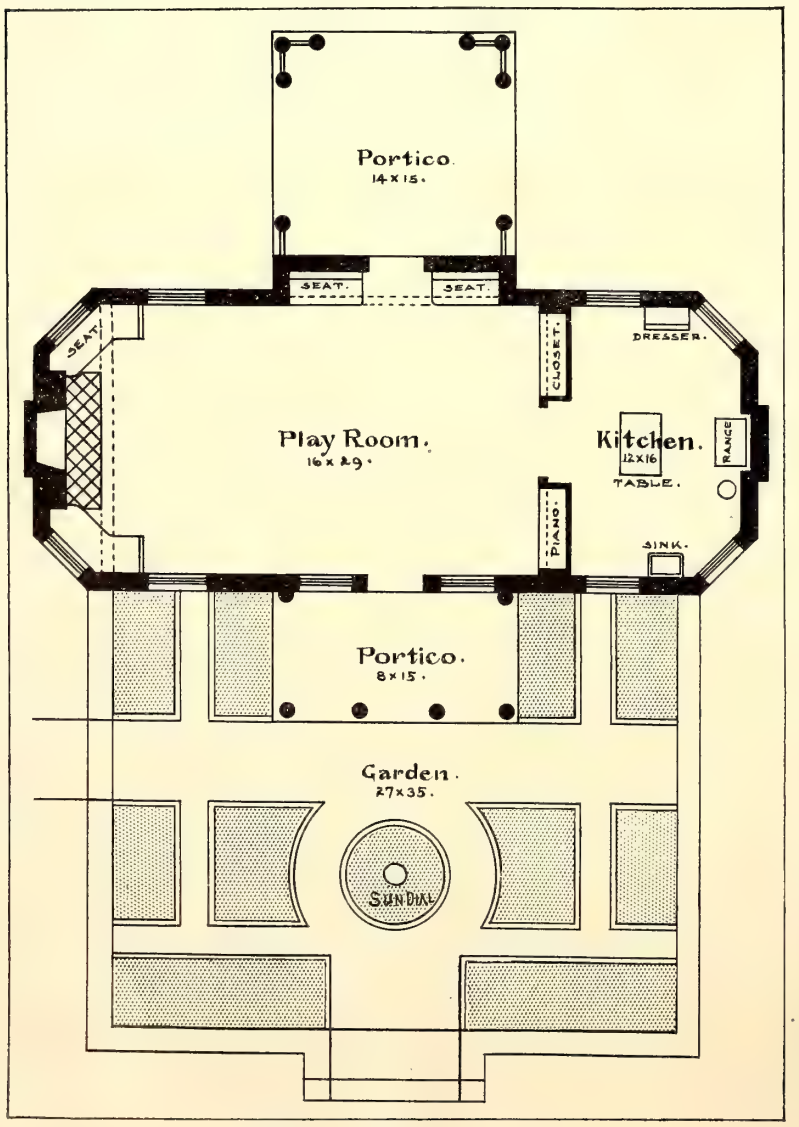
IN olden times, before life had become as strenuous and as complex as it is in our day, the garden house was very often included among the buildings necessary upon any large and important country estate. It is hardly possibly to say just where or when the idea originated, for it was used in various forms by the ancients, and every nation of modern Europe has taken part in its development, which has extended through several centuries. The original garden house was probably a small building—a mere shelter—placed in the grounds some distance from the villa or country home, and designed as a little retreat or retiring place where cares might be laid aside for a moment and forgotten in the quiet and peace found close to the heart of nature. Its very utility probably caused its being developed into the more extensive and elaborate building which it afterwards became, and garden houses, called by different names, are found in the grounds of many of the great country places of England, Germany, and particularly in Italy. In the Vatican garden is a small villa which is really a garden house, and here for generations the Popes have passed part of the long warm days which are so numerous in Rome. In France, the idea was expanded into a structure highly decorative and elaborate, in keeping, of course, with the surroundings of which the garden house was a part. The Little Trianon itself was really such a retreat upon a scale vastly enlarged and glorified, and here Louis XIV and his court would lead their version of the simple life in an existence largely in masquerade, shorn of the pomp and circumstance of ordinary days, and of much of the divinity which doth hedge in a king.

Very few of the early American country houses were sufficiently extensive to include more than the most primitive of structures which could really be called garden houses. Perhaps the nearest approach to such an accessory was the little building upon the edge of the lawn at Monticello, which was, and still is, used as a waiting-room or office. When Thomas Jefferson built his country home upon a hill top in Virginia, he was fresh from his career as the first of the long line of American ambassadors to France, and while he planned and built with true Jeffersonian simplicity, he included this modest little structure among the buildings of the greatest of Colonial estates. His garden house, to

be sure, was the most modest of buildings and was used as a workroom or study, and here he prepared the plans for the University of Virginia, and watched the construction of what he regarded as the greatest of his works.

In its present form in America, the garden house is not a Summer house or a tea house, although it may fulfill some of the functions of both. A Summer house consists chiefly of a roof and is open upon all sides or else enclosed or screened by columns, panels of lattice work or growing vines. It is often placed upon an eminence from which an extensive view may be had, and in its more elaborate form is sometimes called a *"belvedere."* A tea house is generally enclosed upon at least three sides with material somewhat more substantial than is used for a Summer house, and it is usually placed in a garden close to the residence or the tennis court, where it is used for the most informal of gatherings or for the serving of afternoon tea. The garden house is apt to be a building substantially constructed in every way, provided with lighting and heating apparatus, and quite as well adapted to study, reading, or writing, or any other serious occupation as to the lighter and gayer moments which it fulfills its chief purpose in serving, and which should be preferably of low height.

The kitchen of this garden house combines beauty with utility



Plan of the garden house

The little garden house upon the estate of Mr. J. Levering Jones, near Philadelphia, is part of an extensive country place and is built to agree both in design and construction with the other buildings of the estate. Its plan suggests at once the old manor house which Thomas Jefferson built at Monticello, for it is broad and low, one story in height, built of brick, with pillared portico and cornices painted white and the ends of the little building, arranged as octagons, give the strongest suggestion of all. The main front of this little retreat is dignified by a row of four Doric columns which support a pediment. Within the portico are three windows, arched and filled with small panes of glass in white frames. All of this old-fashioned stateliness faces a small formal garden, surrounded by a wall, and the plan calls for a precise arrangement of walks and flower beds edged with box, with a sundial to mark the center of the garden. The door within the portico opens directly into a very large room which is called a "playroom," and its arrangement and furnishing suggest that it may be a playroom in every sense, not only a place where the youthful members of the family may romp and be merry, but where, at other times, the older members of the household may enjoy the rest and quiet and freedom from the cares of the moment, which is the function of a "playroom" to provide. A long, low room lighted by seven windows is arranged with a huge brick chimney and fireplace between two of the windows at one end. The ceiling is beamed and everywhere are seats, built-in and cushioned—many books, easy lounging chairs, a piano and a tea-table. Rugs are spread over the hard wood floor, and the light which enters through the figured curtains which come to the window sills falls upon numerous pieces of old brass, much quaint pottery and many small belongings, all of which are arranged against walls of rough plaster divided into panels by strips of wood stained a dark color. The lighting fixtures are silhouettes cut from sheet metal and placed within oval bands of metal fitted with electric bulbs. The purpose of the playroom calls for a treatment gaily informal, for after all the very essence of play is informality, and a room should be arranged in keeping with the purpose for which it is intended, and objects of great value or easily broken might more fittingly be placed somewhere else.

A door at one end of the playroom enters into the most complete and fascinating of kitchens, where the treatment is so decorative that it may well serve as a model for those austere housekeepers, who hold that a kitchen which is practical cannot be a room which is also beautiful with a beauty suitable to its purpose. The floor is of large dark red flags, oblong in shape, and laid in what is sometimes called the herring-bone pattern. Walls are of rough plaster of a light color and built-in dressers and plate racks are filled with china and jars gaily decorated with the crudest and simplest of colors and designs. The windows are hung with Dutch curtains of white over their small square panes, and a range with hot water boiler is built into an alcove, and the space above is hung with stew pans and other cooking utensils in the enameled ware, which is decorative without being at all expensive. A sink is placed between two windows,

and at the center of this completely-equipped little kitchen is the strongest and most practical of tables, with the space below arranged for the storing of pots and pans and other paraphernalia of cooking, whether the cook be the mistress of the estate or one of the junior members of the household. Before the kitchen table an old-fashioned rag rug is spread over the floor of dark red paving bricks. Everything is exceedingly practical and business-like and suited to its use. Ruskin once said that nothing is beautiful which is not suitable, and here beauty and utility have co-operated with suitability to create a little kitchen completely satisfactory from every point of view. The garden house being planned with considerable formality, as far as its exterior is concerned, is provided with two fronts, and opposite the garden entrance with its pillared portico is another porch, almost square, with a roof supported by more Doric columns painted white. This little building, which, as has been said, is part of a somewhat extensive suburban estate, is entirely in keeping with its surroundings and is no doubt a source of great comfort to the family for whom it has been designed and built.

A garden house might be placed in many gardens about country houses where, besides serving a very definite practical purpose, it would afford a feature of interest which many exceedingly beautiful gardens so frequently lack. Such little structures are most successful when built in the style of the residence itself, and are particularly decorative when placed at the end of a long walk, upon the garden axis, or at some other point where a feature of some emphasis is desired. Of its practical value it is almost unnecessary to speak, for at times when quiet is desired for reading or study, or when one feels the need of a little concentration upon some definite line of thought, the little garden house will offer quietude, and seclusion particularly welcome. It is apt to be surrounded by the peace, as well as the beauty, which nature gathers to lavish upon the space within the garden's walls.

One view of the entrance portico

At other times the garden house may be given over to the pastimes of the younger generation, for it may be assumed that nothing very fragile is used in its furnishing. If a piano be included among its fittings its sphere of usefulness will be still further widened, and if the garden house be near the tennis court many other uses will immediately suggest themselves, or tennis and other features could be placed near it in original planning. In one way or another it may prove a useful addition to the family's social life and a decided ornament to the garden.

The furnishing of the "playroom" suggests that the grown-up members of the family should use it as well as the children

EVERGREENS ENHANCE THE BI

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AUTY OF THE HOME GROUND

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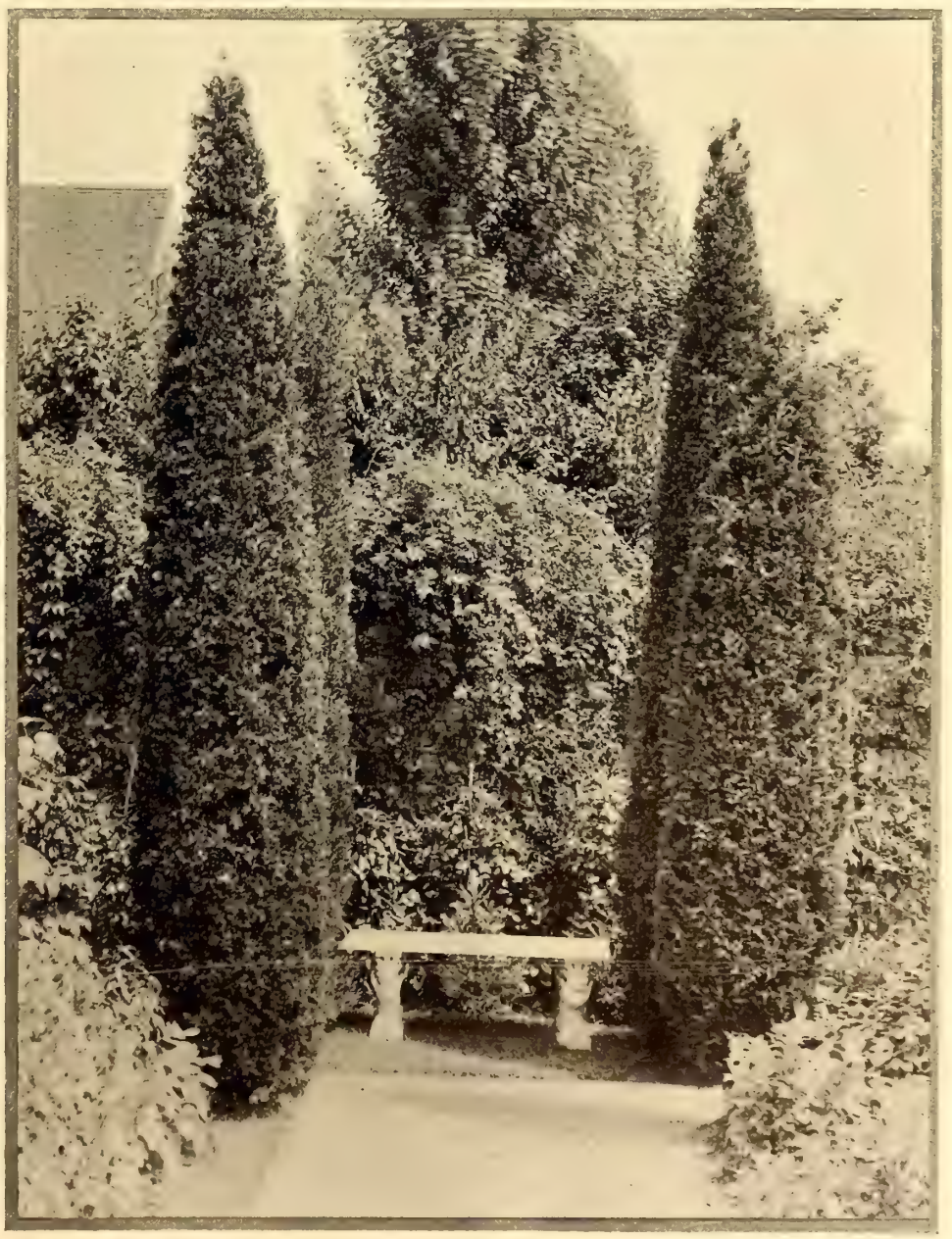


EVERGREENS ENHANCE THE BEAUTY OF THE HOME GROUND

THERE are few persons the world over who have not a tender spot in their hearts for Evergreens. Mother Nature has hardly given us greater treasures in the whole realm of plant-life, than in her gift of the trees that remain green always. In Summer their deep color, suggesting shadowy mysteriousness marks them as they stand against the ground of deeper color or against the azure sky. In Winter they give to the landscape just the note of relief required to lift the vision above the sense of the monotony of the brown earth or the glare of the snow-clad countryside. Perhaps we unconsciously associate all Evergreens with the Christmas story and its gladsome festivities, or it may be that there runs in our blood the heritage of the Norsemen, the Teutons, or the Saxons, who held the Evergreen in veneration. Even the ancient Greeks told how Cybele, mother of the gods, changed a shepherd lad into a Pine, and Jove, sympathizing with her in the after-grief she betrayed for her act, ordained that thenceforward the leaves of the Pine should be ever green. Even to this day in China, the natives consider the Pine emblematic of eternal friendship, and did not the Pilgrim Fathers take the old Pine Tree (the only green, growing thing they saw brightening the horizon of their landing), as the emblem of their new colony? Then there is the Larch which, when burned, was thought in times of witchery to drive away serpents and evil things, and the Juniper, venerable in the traditions of antiquity. The Fir, St. Nicholas's tree, the Spruce, chief mystic tree of the Indians of the Northwest, and the Hemlock (which we must not confuse with the plant the ancients meted out as death potion to the condemned), the Cedar, famous in the building of Solomon's Temple, and the Cypress, from which was woven the crown of Melpomeme, the tragic muse.

The studio-home of an artist-architect in the Catskills

A Home in the Catskills

By Ida J. Burgess
Photographs by the Author

AMONG the interesting homes artists have erected for themselves in the Catskill Mountains, none has greater force of originality than the one growing out of the sloping mountain-side above the little hamlet of Bearsville, N. Y., the home of Miss Derring Woodward, who is joint owner with Miss Louise Johnson.

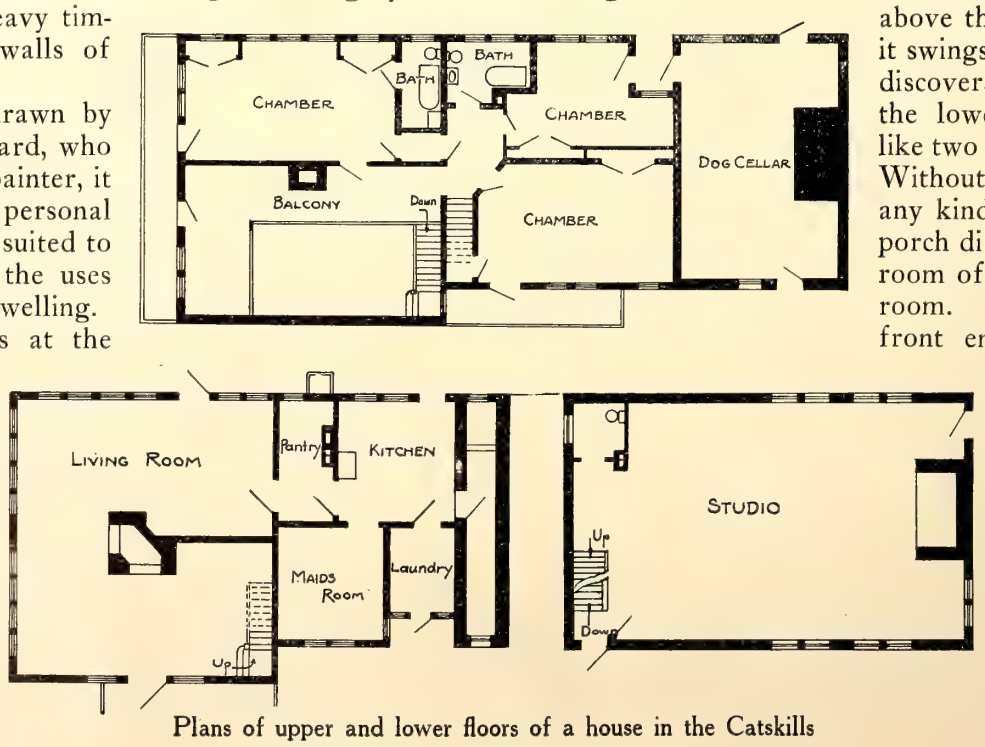
Pines surrounding the house lend the charm of the primeval wilderness to its setting. Wild flowers bloom among the pine needles, whose soft brown carpet is spread under foot. In Summer or in Winter, the green tracery of pine boughs weaves over its fine network against the gray stone foundation and the heavy timbered and plastered walls of the house.

Built from plans drawn by Miss Derring Woodward, who is architect as well as painter, it exemplifies clearly personal preferences in a home suited to its environments and the uses of a studio as well as dwelling.

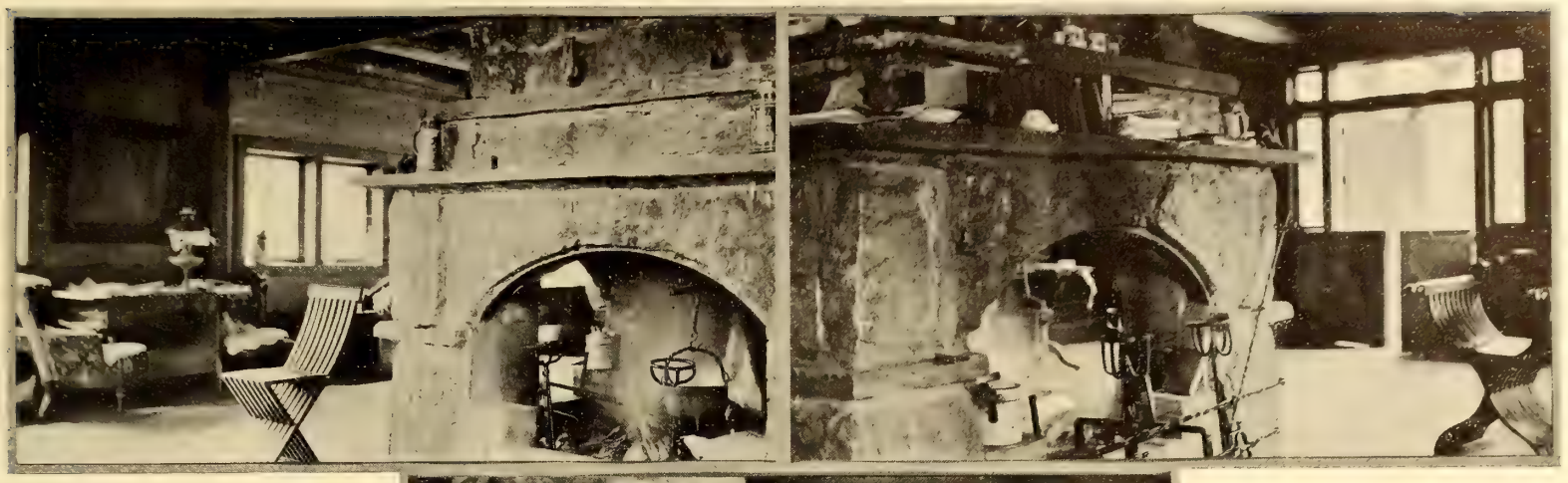
The studio appears at the back of the structure, overtopping the living portion, yet having its base against the hillside. This adds to the apparent size and conveys a fine sense of height to the mass of the building.

From the massive foundation walk, with its spreading base, to the pink tile of the projecting roof there is everywhere shown the sense of good proportions. The placing of the windows in groups, with regular spacing, and the overhanging balconies of wood, with heavy timber supports bracketed against the walls, give a sense of dignified seclusion, harmonizing well with the almost fortress-like appearance of the exterior.

The massive front door, with its handwrought iron hinges and door-knocker, corresponds admirably with the feeling of castle-like strength already conveyed by the foundation walls. Relieving the severity of the entrance, however, are the long, narrow windows at either side and the transom above this heavy door. When it swings back on its hinges one discovers a half-door, closing the lower part only, opening like two leaves into the interior. Without entry or hallway of any kind, one enters from the porch directly into the principal room of the house—the living-room. Occupying the entire front end of the building, it serves as reception-room and dining-room, but so conveniently arranged by the placing of the large stone chimney that one is almost completely shut off from the other, and quite so by an arrangement of screens whenever this is made desirable.



Plans of upper and lower floors of a house in the Catskills



Three views of the great fireplace in the living-room—This fireplace has openings on two sides

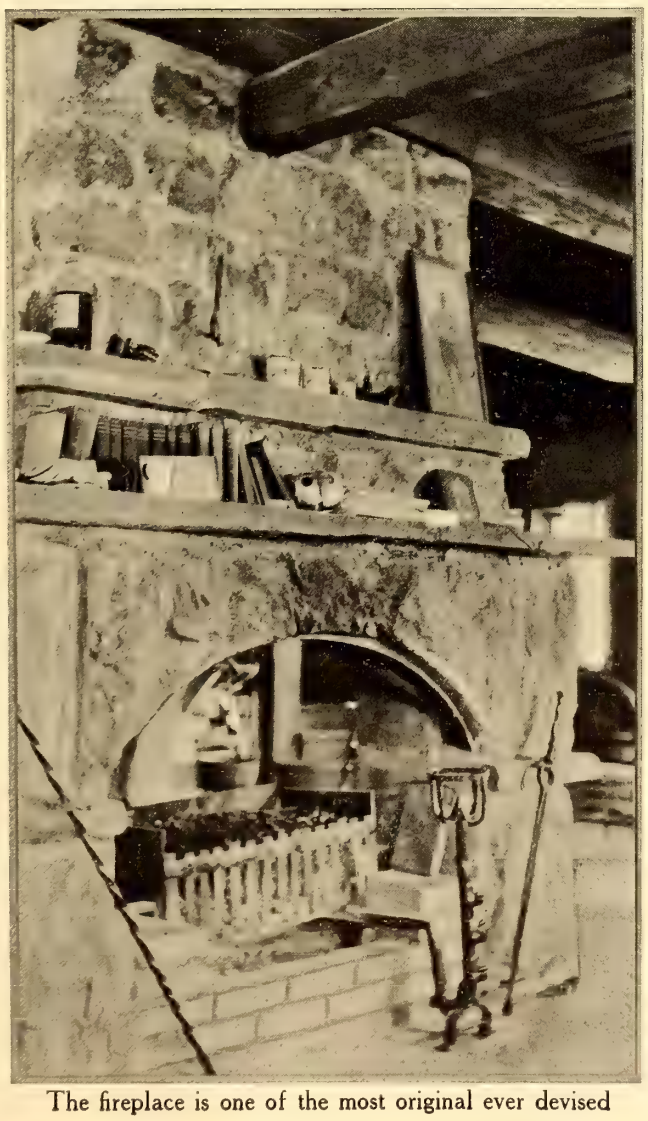
Individuality is strongly indicated by the most interesting manner in which this chimney, having two fireplace openings, is constructed. One opening facing the entrance door, with arch and shelf above of heavy cut stone, is repeated by another similar opening on the end of the chimney, at the side of the first one. The fireback is built diagonally with one flue for these two openings, and the observer has the unusual opportunity here of looking through the double arch of the fireplace into the distant portion of the living-room.

The wrought-iron fire-baskets rest on antique andirons, whose spreading feet stand on the stone floor. In a climate where a fire is so grateful during all but the hottest Summer months, the blazing fire of logs or the glowing coal fire of Winter makes here a beautiful picture of homelike comfort and hospitality. The stone floor soon becomes warm and holds the heat. With rugs spread over it, it is the warmest possible floor.

The stairway, crossing near the entrance door, crosses the end of the living-room to a narrow balcony built across the chimney breast. From this, entrance is made to a bedroom over the dining-room and to the "nook" above the living-room, where a piano, easy chairs and a swinging hammock invite to cosy comfort with book or music. The windows of this upper corner open to the narrow covered balcony of the front of the house, sheltered by the pine trees.

A bedroom, having windows opening on the same balcony, occupies the other corner of the front of the house. There the roof, extending far beyond the walls, protects the many windows from the strong sunlight.

A door opening into a hall at the head of the stairway leads into the center of the house. Two



The fireplace is one of the most original ever devised

guest rooms are located here, each having its separate balcony on different sides of the house, where outdoor sleeping may be at the choice of the guest.

The windows, grouped again like those of the living-room below, are hung with curtains in delicate tones of gray and soft pink, in a border pattern. These curtains are of the sort of fabric artists devise by skilfully dipping the material in dyes of just the right tone. The results are charming, unique, and only attainable by the initiated. Another short stairway leads up to the studio, the largest room in the house, overtopping the front with its low gable end. Directly at the end of the studio a door opens to a short terrace against the hillside. With windows on three sides, this lofty room is an ideal workroom. A large chimney at the end, built of rough stone, has, like its companion of the living-room, some quite unique features in the arrangement of the fireplace. The stone firebed is lifted about eighteen inches above the hearth, and is deep enough to take very large logs of wood. The hood is supported by heavy iron cross pieces. The shelves and seats on either side are of stone slabs and boulders, just as they came from the mountain. The balcony across the opposite end of the studio is lighted by a group of windows, and is in itself a commodious workroom.

Just beneath the studio, with doors opening on both sides of the house, is a commodious dog kennel, with all the nooks and separate little houses these friends of the family desire.

The kitchen, pantry, servants' rooms and laundry occupy the center of the house, with the service entrance just back of the high cement screen of the front porch.

A special feature of the furnishings is the built-in dressing-tables

End of the studio, showing broad fireplace

View of the house showing long upper balcony

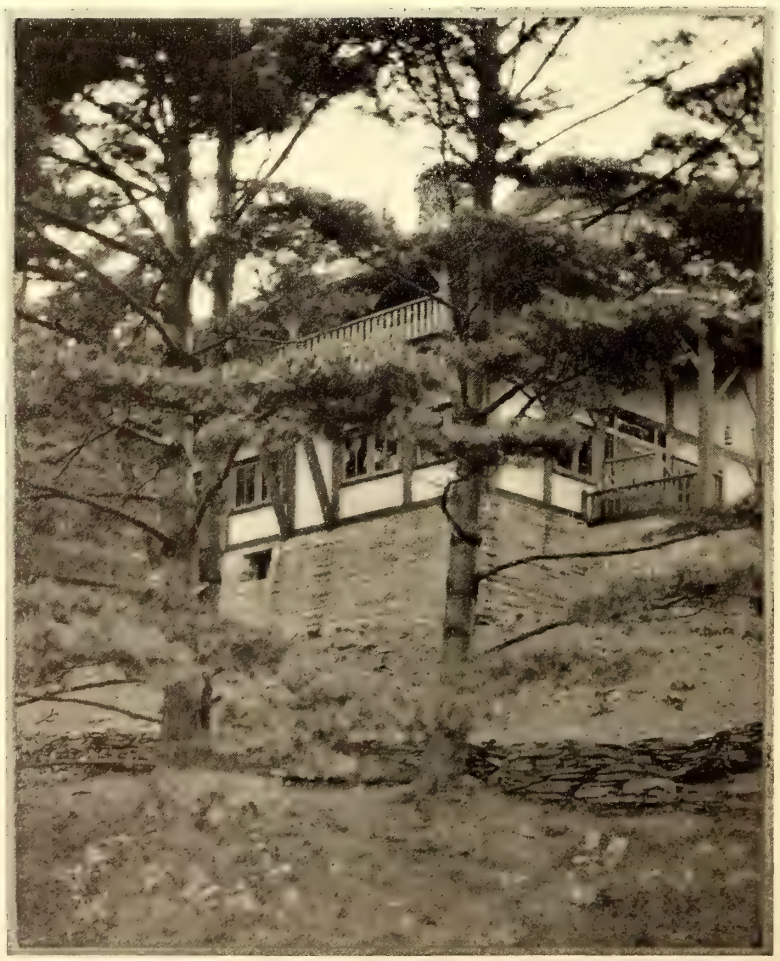
under the windows of the bedrooms, with mirrors set into the walls. The beds, instead of having a high head and footboard, have merely a rail of uniform height at the head, sides and foot, with square spindles enclosing them on all but one side. At the foot, a low seat drops like a table-leaf when not in use.

Of the gray screens used in the living-room to separate any one portion of the room from another, they are covered in heavy material without ornament. The walls throughout the house are ceiled in wood and stained gray. The windows are curtained with a material not too heavy, nor yet entirely transparent, of an indescribable dull rose color, having one of those specially designed patterns in gray with touches of white, which only artists trust themselves to create, mere suggestions of pattern, with dull tones of color, as seen against the light.

The timbered paneling of the outer wall surface lends a fine architectural note to the exterior of the building. The stain of dark gray is most satisfactory, giving the timbers the grayness of old-world houses.

As seen from one of the distant mountain roads, the compact building, with its stuccoed walls and pink tiled roof, recalls the villas of Italy, set against the hillside among its pine trees.

There is always a special glamour and a particular interest surrounding a studio or the workroom of an artist, and when the surroundings may be planned regardless of the restrictions which limit and hedge in the arrangement of most homes, and in a region as wild and as picturesque as that in which this country studio is set, the result is sure to be attractive. Miss Woodward has planned her home to meet the combined requirements of a dwelling as well as of a workroom, and the plan shows a very skillful and successful working out and combining of rooms for both purposes. The arrangement provides spacious and exceedingly attractive living quarters—a great living-room so divided by its double fireplaces that it is a dining-room as well, and the service-rooms so planned and grouped that they are compact and complete within themselves and interfere in no way with the rest of the house.



The foundations and half-timber design give the house a Japanese aspect emphasized by the grove of Evergreens in which the structure is placed

The upper floor is divided into bedrooms and planned with special reference to the comfort and convenience of guests, the narrow balconies which are tucked up under the wide overhang of the eaves serving a very practical purpose as open air sleeping rooms which are especially attractive to visitors in the Catskill country and in a place where the house is set within a forest of pine.

But after all the chief reason for the existence of this beautiful home is that it may serve as a studio wherein an artist may work, and the great area and height given to this room and the skillful arrangement of its windows prove how well the studio is equipped to fulfill the purpose for which it was designed. Someone who has known many artists and visited studios in city and country in many parts of the world has said that for some reason the workshop is the part of the house which seems the most attractive and where the family and its friends love chiefly to congregate. One may imagine, therefore, that even with the very attractive living quarters of Miss Woodward's home the favorite meeting place is about the big fireplace built of boulders which fills in one end of her studio and which is surrounded by windows that give upon a grounds close to a delightful pine forest; trees that are indeed her outdoor guests.

It is easy to picture the charm of this great room during the late hours of a Winter afternoon, when the snow-covered ground, the sturdy boughs of the pines and perhaps the glow of a Winter sunset may be seen from the fireside where the warmth and light of blazing logs summon family and guests to the afternoon rendezvous in the studio. At this witching hour the beauty of out of doors is at its height and the cheer and comfort within are especially inviting, so that a beautiful home which is also a studio, and placed amid the lavishness of nature's bounty, combines the charms of all to a wonderful degree.

One of the chief attractions of the Peony lies in its wealth of beautiful foliage throughout the season

The Peony

By Gardner Teall
Photographs by Nathan R. Graves

THE beautiful hardy perennial, the herbaceous Peony, is one of the incomparable flowers which the old-fashioned garden has handed down with tender care to the appreciative garden-maker of to-day. There is not, in the whole realm of Flora, a plant combining a greater variety of garden advantages. Peonies are hardy and need little care, their color is exquisite and runs from the snow-white of the *Festiva Maxima* variety, illustrated at the bottom of page 325, through the ivory and cream tints of such varieties as the "Duke of Wellington," the "Amazone" or the "Couronne d'Or" to the velvety red of the "Auguste Lemonnier," with hundreds of intermediary tints and even deeper colorings than the last named variety as we find in the blossoms of the "Constant Devred," a fine variety bearing soft, clear purple blossoms which are imbricated like a Rose and which are very fragrant.

Herbaceous Peonies might well be described as hardy as an oak plant, for they withstand the most severe climates and sudden climatic changes, and seem to increase in vigor each succeeding year of their growth, being remarkably free, as well, from all plant diseases and from insects as well. It flowers early in June, and September is the proper month for setting out new plants. In preparing for the planting one should bear in mind the fact that the soil should be free from the application of fresh manurial fertilizer. Old manure that has stood for at least ten months may be employed, but even then it would be better if this were turned over with the soil in the spot where the Peonies are to be planted some time before they are actually set out. One of the most frequent faults in Peony culture, with those who have had little planting experience, lies in their not preparing the soil by digging it to a depth of fully two feet, working it into a fine condition of pulverization. Again the drainage conditions of the soil should be taken into consideration, just as they should in setting out other herbaceous species.

In ordering plants for September setting, it is worth remembering that if early effects are desired, clumps of undivided roots should be specified, though of course single roots are far less expensive, and where one is willing to bide the time, they will, in the course of a few seasons, produce fine clumps by re-multiplying. Peonies, sturdy growers though they are, need some humoring for the first season. They take their own time in establishing themselves, as though they were conscious of their supremacy and their dignity did not find rushing into gorgeous array compatable with their station in Nature's court. Indeed, it often happens that they do not bloom at all the first year after they are set out, and not infrequently also miss the second year. But one must not be discouraged, and we ought to remember that the reward for our patience in the future of these

A Peony of the Rose variety

beautiful plants is in keeping with the care we give to them and the curb to our impatience to see everything we plant rushing into a riot of bloom. Again, if the Peonies you plant this September should blossom next season with but an indifferent quality of flowering, do not feel that you have been deceived in your hopes, for Peonies have a trick of not putting their best bloom foremost until they are quite ready to dazzle the garden world. Many plants that produce poor flowers the first season come forward the third with a luxurious wealth of color, a glad surprise to the garden-maker whose faith has not remained unshaken in the traditions of the plant.

Probably the desire to have varieties not to be found in our neighbor's garden often leads one into mistakes in selecting varieties for planting. It would be far better to try to learn what varieties are best suited to the section of the country where one's garden is located than to experiment, at least without asking competent advice on the subject. There may, for instance, be certain varieties that would prove themselves to be prolific bloomers in Pennsylvania, but which might produce but a scant number of blossoms in New England or in the Middle West. Fortunately, however, the garden-maker will find it quite safe to take the advice of reliable nurserymen on this subject, and the garden-beginner lacking experience in the matter could scarcely do better than to decide, in a general way, the main characteristics, such as color, form and fragrance of the Peonies he desires for planting, leaving the selection of exact varieties to the nurseryman who supplies his need. A careful study of the Peony catalogues will be both profitable and interesting, and one can learn much therefrom, as the modern catalogue has come to be almost a condensed horticultural handbook of plant varieties. One might also bear in mind that a neighbor's garden, without a word from the neighbor himself, as a record of his plants should not be taken as an infallible guide, for the reason of the extraordinary way Peonies now and then have of defying the sea-

Few hardy perennials can compete with the loveliness of the herbaceous Peonies blooming in profusion

sons. I have known gardens ablaze in color with an infinite number of wonderful Peony blossoms right in the midst of a season that has been hard on all other flowering plants, and which, in a season of apparently the most favorable weather conditions, produced but few blossoms, though the next year these same plants burst forth again in all their glory. In connection with this phase of Peony culture, it should be remarked that the English varieties of Peonies sometimes imported seldom thrive as well in the climate of America as they do in their own environment. Therefore it would be better to avoid such varieties unless one wished to experiment.

As to the various distinct sorts of Peonies, from the point of their habits of growth, there is the Shrubby species, with one representative—*Pæonia Monton,* called the Tree Peony; the Single or "Anemone" Peonies, such as the "Sunbeam" and the "Otto Froebel" varieties, and the Double or "Rose" and "Crown" types of Peonies, such as the *Festiva Maxima,* "Golden Harvest" and the *Rubra Superba,* with the intermediate or Japanese Peonies—single varieties just beginning to double. The Bomb varieties are those sorts which show still further doubling.

When planting Peonies the crowns of the stock should be placed some two inches below the surface of the soil. As suggested in a paragraph elsewhere in this article, the fertilizer used in the beds should be well-rotted. Peonies are gross feeders and the ground in which they are planted should be well tilled. A top-dressing placed upon the plants in November, and forked into the beds the following Spring, will be of much help in encouraging growth. Peonies appreciate a generous amount of water, especially in the period of their bloom. When dividing clumps the division will be determined by the number of Tubers with eyes. There should be as many divisions as there are eyes to the Tubers. Tubers without eyes may also be planted, as they often shoot forth after a couple of years. As Peonies, when dormant, stand the exposure during shipment and storage remark-

A Peony that has learned the trick of perfect bloom

Many varieties of the Peony possess a delightful fragrance that lends a delicate perfume to the garden

ably well, the garden-beginner need have little fear of ordering plants from a distance when that is necessary. We need not here touch upon the other two methods of Peony propagation, that of propagation by grafting and that of propagation by seeds, as only the professional gardener will be apt to start Peonies by either of these methods.

When we take into consideration the fact that there are some two hundred varieties of Peonies in cultivation, we shall have no difficulty in making a selection for our gardens, unless it be that we are met with an embarassment of these riches. Even horticulturists disagree in the matter of the estimated number of sorts of Peonies, some even insisting that over two thousand varieties are to be found. However, I think two hundred is not too conservative an estimate, for the mere difference in horticultural names given various plants at profuse florists' christenings does not necessarily mean that all of the Peonies listed are constant and actually different varieties.

Nearly every one of us will wish to have Peonies in our gardens suitable for cutting, and the following list will call attention to those varieties which experience has shown to be recommended for this purpose:

WHITE: Festiva Maxima, the loveliest of all white Peonies; Papaveriflora (tinged with yellow); Madame Crousse, Bernard Palissy, LaTulipe; Madame de Verneville (compact); Couronne d'Or (late); Duchesse de Nemours (sulphur white); Marie Lemoine (very late) and the Monsieur Dupont.

PINK: Beauté Français (fragrant and early); Perfection (fragrant and late); President Wilder (dwarf variety); Livingstone, Alexandrina, Marguerite Gerard and Madame Emile Gallé.

ROSE: Marie Deroux; Norfolk; Madame Geissler; Daniel d'Albert; Zoe Calot, and Delicatissima (very large).

RED: Rubra Superba (late); Modeste Guerin (very fine); François Ortegat; Insignis (fragrant); Denis Helye; Felix Crousse and Auguste Lemonnier.

YELLOW: Golden Wedding and Solfaterre.

The following is a list of dependable Peony varieties, arranged alphabetically, and planned to assist the garden-maker in his selections for September planting: Adolph Rousseau (large, deep purple); Ambroise Verschaffelt (purplish crimson, fragrant); Arthemise (rose); Atro-sanguinea (red tinged with violet); Augustin d'Hour (purplish scarlet); Baroness Schroeder (flesh pink); Charles Binder (deep pink, fragrant); Charles Verdier (Lilac Rose); Charlemagne (white, fragrant, late); Constant Devred (purple); Delacheii (dark crimson); Dr. Bretonneau (rose-pink, fragrant); Dorchester (cream, fragrant); Eudalis (violet rose, fragrant); Festiva (white); Fulgida (crimson); General Bertrand (rose-violet); Globoso Grandiflora (white, fragrant); Gigantea (delicate rose, fragrant); Henri Demay (violet-purple, fragrant, late); Jeanne d'Arc (rose and straw center); Jussieu (deep crimson); Lady Leonora Bramwell (silvery rose); Latipetela (flesh and cream); Louis Van Houtte (dark crimson); Madame Bucquet (dark maroon); Madame de Galhau (salmon); Madame Ducel (salmon rose); Madame Geissler (silvery rose); Madame Lebon (cherry); Mademoiselle Leonie Calot (salmon); Mademoiselle R. Dessert (lilac); Monsieur Boucharlat (lilac); Monsieur J. Elie (glossy pink); Monsieur Martin Cahuzac (black maroon); Ne Plus Ultra (rose, fragrant); Perfection (pink, fragrant, late); Dubra Triumphans (dark crimson); Therese (flesh-pink); Vicomtesse Belleval (pink, fragrant); Ville de Nancy (crimson, late); Violacea (violet), and Zoe Calot (delicate rose).

Among those Peonies which are earliest to flower may be mentioned three "Officinalis" varieties, viz.: Rubra, a double fragrant crimson of large size, the old-fashioned early red Peony; Tenuifolia Flore Pleno, a double, fennel-leaved variety bearing bright scarlet-crimson flowers, and the Rosea Peony, one of the lovely rose-colored variety.

(*Continued on page 333*)

Single varieties of the Peony are less commonly met with in our gardens than the double varieties, but they are as beautiful

Two views of a beautiful goldfish bowl of bronze and crystal. The figure of the girl fishing is about two feet in height

The Breeding and Care of Gold Fish

By Ida D. Bennett
Photographs by T. C. Turner

IN breeding and care of gold fish a pastime is found where one can work profitably because of the small outlay required in the initial undertaking and the rapidity with which this class of fish increase. Of course if one is to embark in the undertaking from a strictly commercial standpoint, and aim to produce fish by the hundreds of thousands, as do the big hatcheries, then the outlay will be considerable, but for the private individual or amateur who wishes, first of all, to enjoy the possession of these delightful little pets, and incidentally, to have them pay expenses from the start, they are all that one can desire in entertaining a hobby.

It is really surprising the amount of these little beauties which are sold annually in the department stores of the country; it is a very small dealer indeed who does not sell several thousand a year, and a dealer who wrote me recently to get prices on my fish stated that he wished to purchase one hundred thousand of them.

While the possessor of two or three fish as pets will, usually, be content with a globe or aquarium in the house, those desiring to rear the fish, in however small a scale, should have pools or ponds in the open air. Usually the formal Lily pool now so frequently found in all extensive gardens will answer admirably for the rearing of a limited number of fish. A pool twelve feet in diameter will afford abundant room for a half dozen mature fish, and from these one may, with the minimum of care, expect a hundred young fry by Fall. Many more would be secured were it not for the penchant of all fish to feed on the spawn or eggs, and what is still more disastrous, of the young spawn, themselves, to feed on the eggs and tiny fish; for this reason one seldom secures more than the first two or three hatches. Of course this could be avoided by having two or more pools and removing the small fish to the second as soon as large enough to capture with a net, but where one considers the use of a single pool this is not practicable.

Another alternative is to stretch a screen of fine meshed galvanized wire across the pool, so shutting off a portion into which the younger fish can escape.

Where one has no pool but wishes to construct one, the ordinary cement Lily pool will be most satisfactory as answering the double purpose of growing Water Lilies and fish, thus gaining a double value from the investment. The usual pool is two feet in depth, one foot of which is taken up with earth.

In such a pool the presence of growing vegetation aerates the water and keeps it in a healthy condition for the life of the fish, the green scum or algæ which will gather as soon as the water is warm is composed of minute vegetable life which is food for the tiny fish and should not be removed. If this were present in the indoor globes the fish would fare much better. Water in such a pool where the conditions are natural is full of minute animal life which supplies the young and grown fish with food, so that nutriment is unnecessary, but one will always wish to give to

fish for the pleasure it affords to establish the intimate relationship which only comes from hand feeding and companionship. For this purpose a bit of bread held in the hand is the best food, and while the fish may be shy at first, they will soon learn to expect their owner and the food, and if this is given at regular hours they will be found waiting. Usually feeding time gives one their first glimpse of the young fish, which may be half grown or not more than an inch, or less, in length, according to how the old fish have been handled and their confidence. Fish which I have bought from dealers and put at once in the ponds sometimes take months to become tame, and their progeny will be half grown before they develop much confidence, while the same fish, when returned to the pond the following Spring will only need to become accustomed to the open pond to resume intimate relations, and the young fry come when very small to feed out of our hands. Of course, in the aquarium indoors they are as tame as kittens.

If, however, one is building a pool expressly for fish it should be made with shelving sides so that at the margin the water may be much too shallow for the grown or half grown fish; this should be well planted with water plants, especially about the edge, so that at the time of spawning the eggs may float against and adhere to the leaves; then when the little fish hatch they will be in shallow water, out of the reach of the larger sort, and will remain there until old enough to care for themselves.

The spawning of the goldfish, which takes place usually between four and nine o'clock in the morning, is of much interest. When about to spawn, the roe fish begin to swim rapidly around the pool, followed closely by the male fish, or by several if only one female is spawning at a time. The eggs pass from the roe in a soft, gelatinous mass which separates upon touching the water, the eggs floating back from the fish and settling against the plants or side of the pool, anything with which they come in contact. At the same time, the male fish, swimming close behind the roe, emit a viscid fluid which, coming in contact with the egg, adheres to and fertilizes them.

A novel form of aquarium

Unlike a hen's or bird's egg, the fish egg has no encasing shell, merely a rather tough membrane, and fertilization takes place much as the bird's egg is fertilized in the oviduct before it becomes encased in the shell.

The eggs are small, yellowish-white objects about as large as the head of a small pin. They hatch in from two to seven days, according to the temperature of the water. An interesting experiment is to gather a few of the eggs, place them in a thin, clear wineglass of water and set this upon the top of a window sash where they can be closely observed. Usually one will be able to see more or less of the eggs hatch if close watch is kept. The eggs will settle to the bottom of the glass; suddenly one is seen to stir almost imperceptibly; again, and the motion is more pronounced. Then the shell falls apart, revealing the tiny inmate, coiled within; for an instant he does not stir, then the nearly colorless mite straightens out, and presto, is full of life and activity. In appearance the newly hatched fish resembles nothing so much as a tiny needle of crystal about three sixteenths of an inch in length and showing a dark line which, by the way, is his spinal column and cord, down his back. Color only comes when he begins to feed, and this he cannot do until placed in pond water, for the little fry cannot eat anything which we can provide—nothing so large as to be visible to the human eye. Two big black eyes are uncannily conspicuous, indeed the youngster seems to be all eyes at this stage of his growth.

In the commercial hatcheries or in one's own practice, if one is so fortunate as to own two or more ponds, the spawn is gathered each morning as soon as laid and deposited upon the moss in the hatching and breeding pools; in this way a large percent. of the fish are saved.

There are three kinds of the common gold fish on the market: the gold fish proper, which are of varying shades of red, according to quality, the finest being a clear pure red, rather dark in color; then there are varying shades of red, yellowish-red, and amber, many of these last are exceedingly beautiful and bring a somewhat higher price in the market than other shades of red. Pearl fish, which are the white fish and of somewhat more value when pure in tone and unmixed with other color, and the so-called silver fish, which are merely uncolored gold fish. Usually, in a pool of mixed fish, a large percent. will be these uncolored fish, which at maturity may be all red, pure white, amber or a combination of all these colors. Sometimes these dark fish are almost or quite black and in changing show markings of red and black, usually distributed with the body red, and tail and fins jet black; when marked this way they appear in the trade as American Orioles and are very beautiful. Unfortunately they do not retain these beautiful markings, the black disappearing entirely by the end of the first year. If one wishes the permanent black markings they must purchase the Japanese Orioles.

Many of the mixed colors are very handsome, much depending on the depth of the red and the purity of the white and the character of the markings. In selecting fish for breeding, one should reject any showing poor color or markings or defective fins or tails; the loss of a scale or two is not of moment, as these are renewed just as one's fingernails grow again.

There are several varieties of gold fish which much exceed in beauty the common sports; perhaps none of them is more beautiful than the fan-tail, especially when grown with the perfect triangular tails of three segments. These are quite as easily raised as the common sort and should be preferred. The fringe tails are another exceedingly beautiful fish, really the most graceful things I ever saw. Then there are the long-tailed comets and the telescope fish, which last are really more curious than beautiful, with their globular bodies and protruding eyes; however, one may well covet a pair of these when procurable in jet black or the rarer blue color. These last fish, however, are seldom brought to this country, as they command a very high price at home.

The glass tank form of aquarium

There is no positive way of telling the sex of young fish and no distinguishing marks to identify the old except at the spawning season, when an ordinary study of the roe fish will serve to identify her. If, however, one has his fish in a large aquarium in the house in the Winter, and will observe closely, it will be quite possible by Spring to have them sorted so as to select breeding pairs with certainty.

It will be noticed that whenever the aquarium is changed and cleaned that under the stimulus of fresh water, well charged with oxygen, the fish show much activity. Playing freely, especially in the evening and early morning. It will be noticed that in their play one fish always chases and follows close behind another, rubbing its head against the other's head and side. This last fish is always the male fish, and one should note carefully his color and markings, as well as those of the female which he is pursuing. The same method is practicable in the pond, though one seldom gets as clear a view of the fish among the moss and lily pads as in the more open aquarium.

Most of the young fish can be removed from the pool when wanted by means of a minnow net, but after a few netsful are taken the remainder become timid and it will be necessary to leave them in the pool until cold weather, when the Lily pads should all be cut and as much of the moss as possible removed for sale or Winter use, and the water drained from the pond and the fish picked up from the receding water. It will be necessary to turn over every leaf and bit of moss and explore every little depression in the mud for the fish, and one must have a tub of water handy to receive them. Indoors the care of fish is simple: as little handling as possible, an abundance of fresh water, but not too frequent change, just so often as the water appears cloudy and sufficient water plant to keep the water perfectly aerated. The Cabomba is the best plant for the purpose and it should be used in bunches weighted with a strip of lead about the ends. Cover the bottom of the globe or aquarium with pebbles, as these hold the dirt in the bottom and prevents it rising and mixing with the water.

When the aquarium is to be cleaned, all moss and stones should be removed and thoroughly washed, scalding the stones and such ornamental castles, etc., as may be present, washing the sides and bottom of the aquarium. If a large one, the water may be syphoned out with a length of hose, which will pick up and remove all the dirt from the bottom; where this is done no stones or shells small enough to enter the hose should be used and care must be given that no small fish are caught and carried outside. Even when exercising considerable care, I have found fish in the pool of water on the ground, and as this usually occurs in cold weather they are very apt to be frozen stiff and care must be taken in lifting and handling them, as the tails and fins are liable to be broken. No treatment, other than to place at once in the fresh water of the aquarium, is required, as a temporary freeze does not hurt fish, indeed all sorts of fish will stand a surprising amount of hardships and accidents, providing it is not unsanitary, but filth and disease is fatal to fish.

When for any reason it is necessary to defer renewing the water in the aquarium until it becomes unsanitary and the fish show signs of injury, they should be removed to a dish or tub of fresh, cold water, to which has been added a liberal handful of table salt; indeed, salt is the one universal remedy for most of the ills to which fish are liable and it is an excellent idea to give them a salt bath frequently during the Winter. In removing the fish from the aquarium it is best to let out most of the water first and then lift the fish by catching them between the palms of the hands, the head of the fish at the tips of the fingers—in this way they do not struggle and are less apt to be injured or frightened.

Always provide the aquarium with a castle or other object having various sized openings, as they love to hide away in these. Very attractive ones can be manufactured at home of pebbles and cement reinforced with wire, if the pure white cement and marble dust is used, the result may be very successful and will be of a size to harmonize with the globe or aquarium; failing, then pile a few large stones for a grotto or cave and see how much they will be enjoyed.

The best Winter food for fish is rolled oats, scattering upon the surface of the water just what they will eat up clean during the day and not giving more until this is all eaten.

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A globe of goldfish in fitting surroundings is always an interesting decorative feature

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

CANDLES AND LAMPS

By Harry Martin Yeomans

AT this season, when one's thoughts are still upon "the little house in the country," or, perhaps, the house which has been planned and dreamed about during the past months is about to become a reality, one should not overlook the subject of those artistic illumination fixtures which add so much to the charm of a room. Among these we will here touch upon candles and lamps.

Pottery and porcelain vases, having openings wide enough to accommodate an oil font, make exceptionally handsome lamps and can be fitted for either oil or electricity. Lamps made from vases in this way are by far more beautiful and appropriate than those that are ordinarily seen in the shops, and when a shade has been added which harmonizes with the other furnishings, a lamp will result which is different from all others and one which will not be alien to its surroundings. An oil font with a burner can be made to order to fit any vase for $3.50. It should not be less than four inches in diameter, nor too deep.

The writer recently saw a high class lamp of good design which would be very attractive in a more or less formal Colonial room, especially with a cretonne shade to match the general color scheme. This lamp was priced five dollars, and others like them are easily procurable in city shops.

The dining-room table is never so beautifully illuminated as when shaded candles are employed. Candlesticks of silver, glass or porcelain hold first place for table decoration and shades of yellow or rose-pink give the most pleasing light and are not trying to the eyes. The objection sometimes made to candles is that they burn down and must be constantly watched so that the shadeholder can be lowered gradually to keep pace with the candle-length. This objectionable feature is done away with if one uses the imitation candle with shadeholder attached. This make-believe candle is of a white composition, inside of which the real candle is placed, and a spiral spring arrangement pushes it up as the candle gradually burns away.

A typical example of Bavarian peasant work in kitchen utensils

In the illustration is shown a three-branched Russian brass candlestick, which is suitable for a room having stained woodwork or finished in dark tones such as usually accompany the Mission style of furnishing. This candlestick is extremely handsome and such objects can be bought in the brass shops for as little as two dollars apiece.

The two pressed glass candlesticks here illustrated cost but ten cents each and are suitable for use in a Colonial dining-room or in one furnished in mahogany. The imitation candles cost fifty cents and the little Empire shades not more than thirty cents each, so it will be seen that any dining-room may have attractive candle lights at very little expense.

A lamp made from a Wedgewood vase

RED AND VIOLET IN INTERIOR DECORATION

IT is true that every color can be used in interior decoration, if properly employed and just the right one can be found, which only emphasizes the fact that some colors are much more difficult to handle than others. Red and violet are in this category and it accounts for their being rarely advised by decorators when the problem of decorating the little house is under consideration. Instead, the grays, which are neutralized violets, and the rose colors and terra cotta, which are derived from red, are used.

Red itself, when employed at anywhere near its full intensity, is an excitable, irritating, nervous color, and is positively injurious to some

Two porcelain cats, modeled with remarkable fidelity to life are among German importations added to the realm of bric-a-brac

people, although they may not realize it. It makes rooms appear smaller than they really are and is not a good background. For this latter reason it should be avoided in all rooms where ladies are apt to congregate, as the various colors of their gowns will be shown off to the worst possible advantage. Good reds cannot be obtained in the less expensive grades of wall-papers and fabrics, and the cheap reds give a common, tawdry appearance to a room.

At one time red was considered as absolutely the only color for the walls of the hall and the dining-room, but, happily, the yellows, tans, grays, and buffs are now appreciated at their full value.

Violet is the nearest color that we have to black, and all of the colors obtained directly from it, the mauves and lavenders, although they may be beautiful in themselves, absorb a great deal of light, and by artificial light they are apt to appear dead and black. This thought should be borne in mind when purchasing decorations that have shades or tints of violet in their composition. If, however, one elects to use one of the colors derived from violet, the lavenders will be found to answer the purpose best, and especially when combined with yellow.

Blue Meissen is an attractive ware for the table

Violet is a morbid color and red is too energetic, which accounts for their being conspicuous by their absence in home decorating.

A BLACK RUG

TO keep its proper place in a decorative scheme, the floor should be dark in tone, in direct contrast with the ceiling, which should be the lightest part of the color scheme. With this idea in mind the black rug has made its appearance, but only time can tell whether it will become a permanent fixture in interior decoration or not. The writer saw one of these black rugs at the Woman's Industrial Exhibition recently held in New York. It was the floor covering for a William and Mary room, simply paneled in

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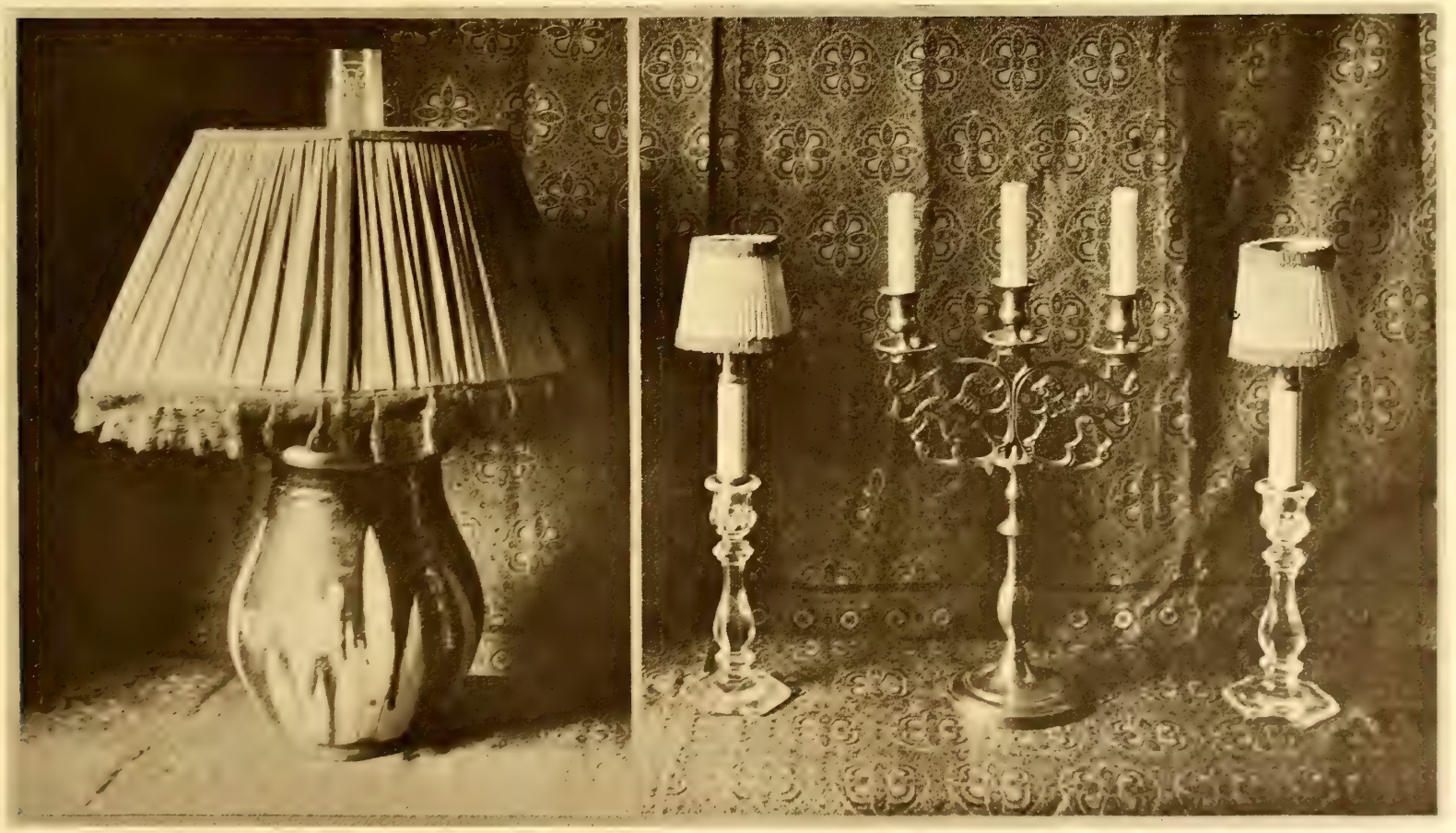

Lamp base made from a pottery vase costing seventy-five cents and a group of three candlesticks, the outer ones of which cost but ten cents apiece and are as effective as they are easy to procure

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

SEPTEMBER IN THE GARDEN

I DO not think there is a lovelier month in the whole of the season than September in the garden. There is something satisfying about well-settled beds of gorgeous Asters, the Gladioli, Cosmos and the Lilies that have not yet forsaken us. We may miss the Daffodils of May, the Roses of June, the Columbines of July and Veronica, fair maid of the August garden, but we still have Ageratum, Anemone Campanula, Clarkia, Dahlia, Foxglove, Godetia, Helianthus Lobelia, Moonflower, dear little Love-in-a-Mist, and many other old favorites with us. We look around upon our garden's delights with pride, and even our garden mistakes seem trivial beside the successes that have come to our patient cultivation of the plants we love. Over there, we tell ourselves, our hardy border has come out too thinly, but we can make amends even in the month to come, for by the time October's planting is here our Summer's experience will have shown us wherein we may make next year's garden even far more lovely than, perhaps, this season's one has been. You will be wishing to take note of the color effects derived by planting—you hardly knew what, when your inexperienced hand first sowed the seed or set out the seedlings.

An example of effective planting around the house

NOW, as you look about you, there appears too much dark color just there near the Hollyhocks, or the Cosmos has come out all white and pale Lilac. Next year it will be right, for as soon as it is possible you will replant for better color effects than it was possible you could do until a Summer in your garden had taught you its worth-while lessons. You will do some plant moving later; those stalks which spread too thickly yonder by the Portulaca bed, quite hiding and almost smothering the bright-faced little earth-clasping spots of gorgeous color, will have to be transplanted to those "thin" spots by the Foxgloves, where you are standing.

SEPTEMBER was wont, in days of old, to appear to be a cool-sounding month, in name, but we know how merciless its droughts have come to be and how carefully we must tend our late-season gardens if we would not have them become dried up and sorrowful things, which a little labor and a little love for them would have kept fresh and refreshing to the sight. You will wish to make little tours of inspection around the home grounds every day, giving succor to here a plant and there a plant which needs your care. Stir up the sun-baked soil around the plant-bases, when they need it, and make little tunnels to the roots so water may reach them. A good plan is to remove a couple of inches of soil from around the plants (the choice shrubs and the like), and after watering until the soil will soak up no more moisture, replace the soil, crumbling it fine and letting it act as a mulch.

THE garden-maker will be looking forward to the forthcoming florists' Fall Bulb catalogues, planning selections, placing orders and preparing—it is none too soon—for the coming Fall Bulb-planting activities. The lawn will require much attention this month.

SEPTEMBER'S blistering days are often a discouragement to the lawn-maker, but he need not despair if a goodly water supply and hose are available. Just sprinkling the lawn actually does more harm than good. The kindly intentioned home-maker who sprinkles the lawn for five minutes every day probably wonders why his grass does not keep up. The trouble is that lawns need to be drenched. They require many and frequent thorough wettings, although one must take care never to rip up places in the sod by directing the stream of water from the hose-nozzle directly upon the grass plot. The nose should be so manipulated that the water will drop from it in the manner of falling rain.

AS for those plants which the garden-maker will wish to move about, the young Hollyhocks, Sweet William, Gaillardia and Clove Pinks, must be taken up and reset by the middle of the month or left undisturbed until the coming Spring months. April, too, will be the month for transplanting Anemones, Yuocas, hardy Chrysanthemums, Tritomas and Magnolias. Do not try to transplant them in the Fall.

MANY garden beginners have already planted perennial seed in boxes. The seedlings should be set out by the middle of the month in the places where they are to come into bloom in next year's garden. Of course these will require protection throughout the Winter by a mulching of straw or a light covering of manure.

IF you are going to do any potting, it will be well for you to prepare a supply of soil for the purpose, making it of a mixture of garden soil, leaf mold, compost manure, etc. Do not neglect attending to this matter, for proper potting soil is not always easily obtained at the moment it is wanted unless one collects a sufficient store of it in advance.

An arch of this sort, overgrown with Wistaria, changes the whole aspect of the service yard

OUR great-grandmothers never let the month of September in the garden slip by without being on the alert for falling seeds from pods of annuals and perennials. The garden-maker of to-day usually bothers little about such things, and yet it is a pity, for there is a certain fascination in bringing to perfection a garden from seeds one has grown himself. At least, it would be interesting to mark the more interesting plants, season after season, and gather their seed before they are lost to us by being scattered from the pods.

YOU had best plant bulbs of the Madonna Lily and of other Lilies this month early, and lift and divide and reset those Lilies which have already multiplied in your gardens. Crocuses, Daffodils and other very early flowering bulbs can go into the ground this month, though Tulips and Hyacinths can very well safely wait until October comes around, before being covered over.

NIGHT-BLOOMING CEREUS

A READER of AMERICAN HOMES AND GARDENS has courteously sent us the interesting photograph here reproduced of the fragrant Night-blooming Cereus, *Cereus grandiflorus*. This extraordinary and beautiful specimen shows six blossoms, an unusual number on a plant of its size. The Night-blooming Cereus has very white blossoms from six to eight inches in diameter, and is native to the West Indies and Mexico, though long cultivated in our gardens, indoors and out. This species of the genus Cereus of the Cacti family is but one of about one hundred other species. It is a luxurious grower when placed where it may receive an abundance of light and good air. An open compost, porus in nature, is best for it, but the drainage must be perfect or the plant will not thrive. The potting soil for indoor growth can be made up of one part of fibrous loam and one part composed of lime rubbish, sand and crushed brick. The flowers of the Night-blooming Cereus open but once, wilting when sunlight strikes them, hence the special interest from the point of view of the plants being a curiosity of vegetable life.

The fragrant Night-blooming Cereus, *Cereus grandiflorus*

EVERGREENS FOR BEDDING

A SUBSCRIBER of AMERICAN HOMES AND GARDENS asks the Editor for a list of Evergreens suitable for various places, and as this is a subject of general interest a short list is given as follows: *Windbreaks*: Norway Spruce and the Pines; *Bedding*: Retinispora, Blue Spruce, Juniper, Mugho Pine, Box, Arborvitæ (Chinese variety also). Rhododendron, and Dwarf White Pine; *Hedges*: Spruce, Arborvitæ, Retinispora, Box and Cedar; *Screens*: Spruce, Retinispora, American Arborvitæ. In selecting Evergreens one should bear in mind the fact that some species are especially short-lived. Among these are the following: White Spruce, Balm of Gilead Fir, Juniper, Cypress, Scotch Pine, and also the Austrian Pine.

THE same correspondent asks what Evergreens are good for forest-lot planting. If one wishes to have a grove of Evergreens, the following are good species for the purpose: White Pine, Red Pine, Hemlock, and Norway Spruce. In planting Evergreens, one must always consider ultimate proportions, that is to say, the relationship between the Evergreens and their surroundings in the years to come, when they will have reached their maturity. It often happens that a tree planted to-day looks very well for two or three years, but quite outgrows the area alloted to it and becomes sort of an intruder and seems out of place by the time five or ten more years have passed those of its earlier growth. Choose carefully, plant them well.

THE PEONY

(*Continued from page 326*)

Among the single and Japanese varieties one may recommend the following: Japan Single White, a fine white variety with showy yellow stamens, and the Tenuifolia variety, having large flowers of a rich crimson, a very early Peony, with exquisite, finely cut foliage.

It was Pliny who cited the Peony in his old-time natural history as being the earliest medicinal plant known to the ancients. He even tells us that the woodpecker is so fond of it that if he catches anyone in the act of plucking one of the flowers he will fly at him and pluck out his eyes! But we are hardly less bound by superstition and strange beliefs in our own day, for we are told that even in this age the peasants of Sussex place great faith in the "healing" qualities of strings of beads carved from Peony roots, which beads they place around the necks of their children to charm away various forms of harmfulness.

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

THE HOME-BUILDERS

By Elizabeth Atwood

MEN build the houses but women build the homes. This may seem a big responsibility to place upon woman, but I believe it to be a fact, and whatever the atmosphere of the home may be, is according to the love, the skill, the interest and the understanding of the woman elected by the man to preside there.

The architect builds the house, but it takes far more than the four walls he has constructed to make a home. How many times we have been in houses, beautiful as art and skill could produce, which the wildest flight of fancy could not call a home. I have been in a home where the only place which held a personal feeling was the nursery. Skilled artists had prepared the house, beautiful as a dream, but it was, after all, a work of artists, lacking that crowning work of the woman to convert it into a home.

A "home-builder" with great emphasis on the word home, has the most comprehensive work in all the world given her to do. It is for her to create the atmosphere of home; to see that the machinery is not too much in evidence and yet it must all run as smoothly as possible; she must be housekeeper in its truest sense; she must be a guide for her children; she must make her home "a rest and refuge from the strenuous and stormy life outside." The more successful she is in each of these branches assigned to her, the greater the success of the whole, and we have a real home, one which will spread its influence after the builder has passed on.

This responsibility should be recognized by the mother, and her girls brought to realize that they, too, some day will be building homes. There is no greater vocation, and its successful accomplishment depends upon the faithful performance of the endless little duties, in themselves only the every-day kind, but which make up the whole of life.

In this work of the "home-builder" she must begin to teach herself just what will make her strong and well-equipped for her task—it is not all play, far from it. I think her first lesson should be *patience*. I believe this to be one of the greatest virtues, and surely no virtue so requires to be at hand, as does this one of patience. I do not mean the cringing, helpless yielding of one's individuality, but the strong and healthful recognition of one's failures and disappointments. Have "patience," one of the ideals of the family, remembering all the time that you are the keynote for the whole family.

If mother is impatient in the morning, Teddy and John will respond, and that pebble thrown into the pond of daily life will send its ripples of impatience through the day. The father is not so strong for the daily grind if he leaves home under a cloud, the children cannot go to school so well fortified for their trials, so great to them, if they are glad to get away from an atmosphere of impatience. As for the "home-builder" herself, she is left to meet her day without the powerful strength of self-satisfaction.

The ideal "home-builder," one we would like to use for our guide and example, would make meal-times always happy and agreeable, hours of refreshment to the soul as well as to the body. The father and mother who make this their rule, to have agreeable and instructive conversation (not argument) at meal-times, have gone a long way on the road toward a perfect home.

Under such an agreement mother's task is the harder. No matter what the day's trials have been, no matter if the maid is gone, or the steak not the right cut, mother must bravely keep all out of sight, and cheerfully set the example of patience. The beginning and the end of married life should be some such developing aim in the heads of the household, which transmitted through them to their children lifts them up out of the common petty trials of life, and gives these children something worth striving for, attainable and precious.

Cheerfulness is another ideal in the home, which our ideal "home-builder" will cultivate, first in herself, then in her children, until the home becomes one of almost perpetual sunshine in spite of the trials which surely come to all. An irritable parent, who has a sharp word for every departure from her way, is sure to have cross children. Just a little thought or care at the beginning will avert the threatening storm; but when a child is once caught in the full tide of ill-nature he cannot understand nor be reasoned with.

Of course if the grown-ups are cheerful and able to control themselves the battle is half won. If mother can convert the wave of anger over a lost collar button into a joke, and then make father see the humor of the situation, she surely becomes an ideal example to follow. It is mother who controls the day. If she meets the children with manner glum when they give her their morning kiss, there will be a shadow follow all for the rest of that day.

"And all the windows of my heart I open to the day." This was Whittier's song. If the mother's heart-windows are open, all feel the joy and love coming to them and respond to their call. The wise and thoughtful "home-builder" will always make a supreme effort to start the day well. A sense of humor straightens out many a kink, and should be cultivated along with the art of taking a cheerful view of things.

The ideal "home-builder" will not be a slave to her home in any sense of the word Linguists tell us that there is no such word as worry in the language of the savage. We all know the women who worry continually, and they cannot, with the worry-habit, become agreeable companions. After all, the successful "home-builder" must be a good

comrade. If the care of her house becomes a fetish and she gives herself up to worrying over this thing and that, she becomes a slave to the house which she is expected to control.

This kind of a housekeeper is not and never can be a "home-builder." She just becomes a part of her house as the snail does to its shell. She may be the soul of kindness to others (when her work allows her to be), but she is merciless to herself. She becomes so conscious of dirt that her very soul has become dusty. She makes a hard mistress if her husband's success allows her to keep one maid or more, for she has for her ideals, dust and work.

Our ideal "home-builder" does not worry over her house, nor does she worry over her children. Having made her home for her family first of all, she is absorbed into their conception of what a home should be. She is so much a part of that home, that from the tiniest tot up, nothing is complete without mother, for "mother understands." We, mothers, must never lose sight for one moment that we are creating memories. Now what kind of memories are they to be?

We would have them contented, joyous memories. Happy the child who can say: "Don't we have nice times at home?" Happy the mother whose boys are always home and find there their happiest moments. Better far than to have the house too fine for daily use. There is an irrepressible longing for rollicking fun in young people, and if this longing were more fully met in the home it would not be so difficult to keep the boy and girl under our own roof.

A happy, joyous home is a powerful magnet. The boy who can bring his friends home with him at all times never cares to belong to a fraternity, for his own home becomes a club. The temptations of the boy do not come into the well-ordered home, for mother's influence is felt.

The ideal "home-builder" will have her home ever ready for the friends of her boy and girl. She will be ready to help entertain these friends, or equally ready to let them alone. In short, she will treat them as she would her honored guests. By this example she is laying the foundation for the building of other homes. If this seems hard, a difficult ideal to live up to, just remember that this is the real work of the "home-builder." The making of a home, a real home for your boy or girl is quite as necessary as cooking proper food for the sustenance of their bodies. What greater thing can you work for? What greater goal can you choose?

It is in the home that character is formed. If the early conditions are not favorable, the little human plants given us to develop and care for will become stunted. A joyous environment develops powers and resources which would otherwise remain dormant. Your loving care, your unselfish devotion will be reproduced for the world's betterment. Your honesty of purpose, your life in your home will bring forth greater results, results more practical, than any work outside may bring.

Such a home as our ideal "home-builder" makes, qualifies her daughters, trains them into that thoughtful consideration for others which will make them useful, helpful comrades when their turn comes. The home-training of too many girls, instead of fitting them for wives and mothers, gives them false ideas of life and instills into their minds conceptions of the world totally at variance with the realities of existence.

To be honest, to be sincere, to be loving, these all call for early training, without which all other gifts suffer. It is not necessary to have an "at-home" day if one is willing to be interrupted. It is not necessary to have a five-course dinner previously arranged for, in order to entertain a guest, if you are truly hospitable. A thoughtful consideration for others can only be developed where the "home-builder" leads the way, for it is as natural for the young to be careless as it is for them to breathe. If the mother is kind and courteous, her daughter will instinctively follow her lead, and then we are told that the girl is "very much of a lady," "why, it was just born in her." This is true to a certain extent, but her mother's training helped a bit, and her constant example helped more.

So you see, at every turn, you find a grave responsibility resting upon the "home-builder." It is she, whose influence enters into all phases of life, it is she who holds the power

TWO RECIPES: By Mary H. Northend

Escalloped Oysters: Place a layer of rolled crackers in a dish, and then a layer of oysters, and lay on small pieces of butter. Dredge with salt and pepper, and moisten well with milk. Add another layer of cracker and of oysters, and butter, and dredge and moisten as before. Continue these alternate layers until the dish is nearly full; then cover with a thin layer of cracker and pieces of butter. Bake and serve with a garnish of toast triangles and parsley.

Devilled Crabs: Mix a can of crabs with one half cup of cream, one tablespoon of Worcestershire sauce, one tablespoon of melted butter, one quarter cup of rolled cracker crumbs, one half wineglassful of sherry, yolks of one and one half hard boiled eggs, a little nutmeg, pepper, and salt to taste. Bake in shells, sprinkle plentifully with cracker crumbs and place a small piece of butter on each. Arrange on platter, and garnish with lemon slices and parsley.

for good. It is her power and her loving care that determines what her girls shall be, whether they shall become "home-builders" or not, the best vocation of all for women.

AVIATION AND CIVIC IMPROVEMENTS

(*Continued from page 307*)

of the architect. In the first place it will probably be necessary to construct huge towers to the tops of which the airships will be tethered and from which they will drift like weathervanes. It is not inconceivable that these towers will dwarf the tallest of existing skyscrapers. How the passengers are to alight from the floating vessel, how they are to reach it from the street must be left to the imagination. Difficult as the problem seems of solution, it is one that can be safely entrusted to the engineer. It will be the architects' business to design these towers so that they will harmonize with the character of the city and so that they will be sufficiently decorative as well as useful.

"MEADOW COURT"

(*Continued from page 310*)

and a rug in which the same tones are repeated throws into prominence the grace of form and the beauty of finish of sideboard, china cabinets, table and chairs.

The upper floor of this spacious house is arranged with seven family bedrooms, many of which are provided with baths. One wing is planned for the young men of the family, and the space over the billiard-room and the study is divided into five bedrooms and a bath for their convenience. The wing at the opposite end of the house is for the servants and contains unusually complete quarters for the maids and men servants required for so extensive a country home.

THE ART OF THE JAPANESE GARDENER

(*Continued from page 314*)

a marsh, and a stream occupying in all not three yards square. A miniature pipe from the house-gutter supplies the water which enables the garden to grow successfully a quantity of beautiful bog and marsh plants. I know another garden where a velvety patch of grass gives the effect of water. The Japanese themselves sometimes make silver sand serve for a water effect. We may do much not only to improve, but to add richness and a naturalness to our gardens by hints thrown out from a study of the methods and art of the Japanese gardener, handed down through ages.

THE BREEDING AND CARE OF GOLD FISH

(*Continued from page 329*)

Occasionally a little finely cut fresh beef may be given, but must not remain uneaten in the water. The prepared fish food will also be relished, but the oats should form the main food supply.

"When should fish be taken into Winter quarters?" is a question often asked. It will be best to allow the fish to remain in the open ponds as late as possible, as the shorter time they are housed the better. Inside conditions are seldom altogether favorable to gold fish, as the gases from coal and illuminating sources are debilitating and the presence of fresh paint, turpentine or varnish is unfavorable, fish having been known to succumb to the odor when confined in a close room with them, as well as to the odor of a lamp left turned low during the night; so that clean, well ventilated air is an important factor in their successful indoor care.

Gold fish are not at all susceptible to cold. Two years ago we kept sixty young fish in a minnow cage in a spring at the lake all Winter, and they were found in fine shape in the Spring, though the weather had been very severe. So it is perfectly safe to leave them out until danger of the pool freezing over.

They should be put out as early in the Spring as it is safe to put the water into the pools—that is, when there is no longer danger of its freezing over solidly—a light skim of ice will do no harm. The early Spring days are crucial days for gold fish, and the greatest mortality of the year occurs then, and extreme watchfulness, together with frequent changes of the water, is necessary.

If the fish swim constantly near the surface of the water, gasping for air, the water should be at once changed. If white spots appear on the head or elsewhere, put the fish at once into a salt bath, allowing it to stay from five minutes to half an hour, according to the extent of the trouble and the action of the fish. If the fish is rolling over in the water or seems to have trouble in rising to the surface, immerse him in a shallow dish of water or in a bowl with just enough water to cover his dorsal fin; this bowl may be floated in the aquarium for safety and the fish left in it until it appears all right. I frequently leave a sick fish in over night and even longer, changing occasionally into fresh water for a few moments until, from its actions, it appears all right. However, if the water is kept clean and well supplied with aerating plants, there is small danger of sick fish.

Gold fish are of marketable size as soon as they have reached an inch and a quarter in length; the dealers use these tiny fish in their special sales where they give a tiny globe, two fish and a bit of moss for a quarter of a dollar. Breeding size fish put out in early May should produce marketable fish by the first of September, and by November, fish nearly three inches in length should be surely available.

A BLACK RUG

(*Continued from page 331*)

wood which had been painted an apple-green. To relieve the intense blackness, there was a border of green, slightly darker in color than the woodwork, around the rug. This also helped to tie it to the rest of the room.

The rug looked better than one would imagine from the description and is correct according to the theory of interior decoration, but if it abide there is another story.

DYING FRUIT TREES

AS many fruit trees are dying in some of the Middle States it is interesting to know that investigations show that the trouble is due to two distinct causes. Considerable fire blight is found upon apples, pears and cherries in many sections. This shows either as a blossom blight or as a blighting of young shoots. It is caused by bacteria and is spread largely by insects. Spraying is useless except as it helps to control the insects. The only remedy is to remove promptly all blighted parts and to burn them, using precautions so as not to spread the disease by pruning tools. The other trouble, Winter injury, was caused by the very severe injury following the long growing Autumn of last year. Where the roots were injured the entire top is weakened or dead. In many cases the trunks or certain of the larger limbs near the crotches are dead. It is impossible to save the parts affected, and since the weather cannot be controlled the best way to avoid further Winter injury will be to use cover crops judiciously.

THE AUTOMOBILE IN SOCIAL LIFE

By R. H. VAN COURT

THE value of the automobile as a social force or factor is beyond all calculation and it may be doubted if its importance is exceeded by the telephone or the telegraph. Writers upon sociology, who are making careful and systematic investigation of the problems presented by our modern overgrown cities, tell us that the root of almost every difficulty which they encounter, lies in the congestion and overcrowding which prevail in our centers of population. The remedy to this lies in getting people out of the cities into the country, of securing for them their birthright to pure air, green fields and the blue sky, and an agency which has caused the entire readjustment of views regarding country living which the automobile has already brought about may surely claim to be an important factor in the work for human betterment.

The time has not yet come when an automobile is within the reach of everyone, but each year sees the nearer approach of this possibility and already the practical advantages of motoring are within the reach of just the class most in need of its help—the hard working business man of moderate means and his family, for besides making possible his working in the city and living with his family in the country, far removed from the turmoil of city life, it secures for them the fulness of the enjoyment of real country living. Then, too, there are the dwellers in small villages and upon farms, many of whom lead lives exceedingly narrow and limited. If no method of getting about is at hand the area in which they exist is either limited to the home or to perhaps a mile or two in any direction, which means that the sphere in which life must be lived is only a few miles in diameter. If a bicycle or a horse be available the social horizon is extended to perhaps twelve miles in any direction, but with an automobile the possibilities for social enjoyment and recreation becomes vastly greater for fifty or sixty miles is not an excessive distance to be covered by even the most moderate of motorists, and this widens the social sphere to a radius of one hundred and twenty miles. This means, of course, that the intellectual and social life of this vast district is opened up and made possible to one, together with all the opportunities for growth and culture which they bring.

Much of the narrowness of life in a small place comes of the inability to get away from it and the consequent feeling of depression and helplessness which it brings. The motor which is now used so largely even in the most rural communities has changed all this by broadening the activities of every day life and this, in turn, has wonderfully invigorated and sharpened the faculties for the daily work. The ease and rapidity with which the automobile takes one any reasonable distance opens up a very wide circle of friends and acquaintances with all the enlarged and quickened social activity which it involves. It also brings a much fuller knowledge of one's country and the locality of one's home and the historical places which may be comparatively near and yet remain unknown under old conditions. The possession of even a very simple car sometimes makes possible a great number of little excursions which may be shared by the entire family, and it is astonishing how interest in local literature and history will be aroused and stimulated by the increased knowledge which an automobile often brings mem-

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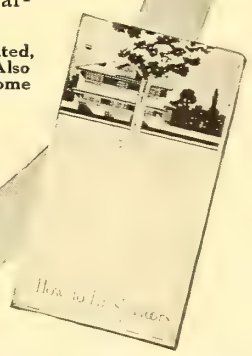

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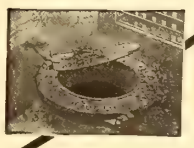

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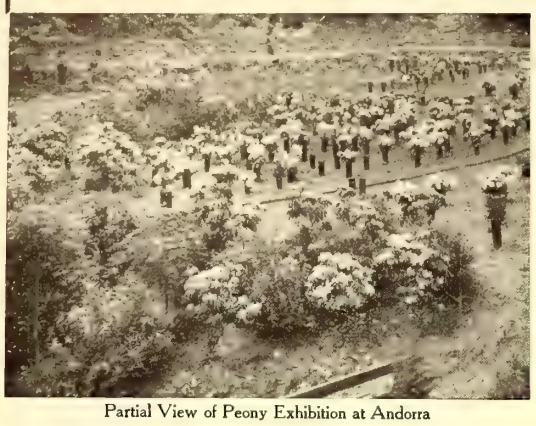

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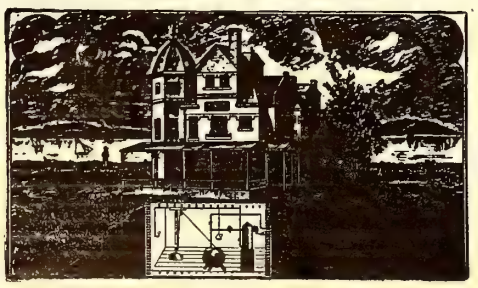

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bers of a family living on a farm fifty miles from New York have never had, until very lately, more than a slight interest in the fascinating country which stretches out about them upon every side. The acquisition of an automobile induced exploration into the depths of the Hudson River country immortalized by Washington Irving and led them through the Sleepy Hollow region and among the Catskills where Rip Van Winkle is said to have lived. A renewed interest in local history took them over the historic roads traveled by the weary Continentals during the days of the Revolution and to the old Colonial homes where Washington at various times maintained his headquarters or where certain of the American generals were once encamped. Longer trips toward Albany made plain much of the history of the early Dutch settlers and other journeys toward Boston and Philadelphia, regions rich in historic associations, brought about an entirely new understanding of the nation's history and literature.

Another family, having explored in various tours in their automobile the greater part of the eastern states of our own country, took their motor with them upon a trip into England and motored through some of the most beautiful of the English shores in the same car which so often carried them over the roads about Philadelphia or over the highways of Westchester County, N. Y. The expense and difficulty of the transportation of the car was much less than had been expected, and its use over the roads of a foreign land made very pleasant the visiting of many places interestingly connected with American history.

The place of the automobile in plans for a vacation is a very important part of its usefulness for it makes possible long camping tours with jaunts into wild and remote country districts, with nights spent either in the most primitive of tents or sleeping upon the ground under the stars. So many are the uses for the motor in country living and so important is the place which it has come to fill that it really adds more to the pleasure of life in the country than any other one thing.

But besides the social advantages which the motor brings to dwellers in the country, and in small places it has a decided social value in or nearer the city. By its use the engagements of the women of the family are made much easier of fulfilment and calls are made which perhaps would be much more difficult if one were obliged to depend upon a street car or some other means of transportation. Then there is a saving which is rarely considered in reckoning up the pros and cons of keeping an automobile and where the considerations are usually those of a financial nature. In even the most economical households there are times when one is obliged to make use of a cab and when the cost during a year of such occasional service is added up it will be found to reach a sum which will make a very imposing addition to the arguments in favor of keeping a motor by which such expense will be avoided.

The ownership of a car does not necessarily involve the keeping of a chauffeur. Even in large cities many automobiles are run by the women who own them, and it may be said that anyone who can operate a sewing machine can run a small motor about the city's streets with entire safety to the car, to herself and to the public. In New York there are many professional women physicians chiefly who motor about by night as well as by day.

MOVABLE FARM INSTITUTES IN NORWAY

THERE is a widespread movement in Norway to promote the interest in agriculture and farm husbandry by state experimental stations, agricultural schools and farm institutes, writes B. M. Rasmusen, U. S. Consul at Bergen, Norway. The entire area of cultivated land in this consular district is a trifle less than 4 per cent of the whole, but it might easily be quadrupled. For encouraging agriculture and farm husbandry, the Council of Nordre Bergenhus Amt (County) has made arrangements for conducting agricultural institutes at three different places in that county during the Winter months. The institute will be under the supervision of the government agriculturalist in order that those participating may have scientific instruction. The plan is as follows: (1) An institute for one month at each place at the most convenient time. (2) The course of study for each district will be selected by the Agricultural Society of said district. (3) Each district shall provide suitable quarters for the holding of such institute, as well as light, fuel, and janitor service. (4) The Agricultural Society shall prepare the courses of study and make the necessary arrangements for putting them into effect. (5) Appropriations made by the county council for this purpose are as follows: Government agriculturist, $121; assistants, $67; secretary, $13; materials, $40.

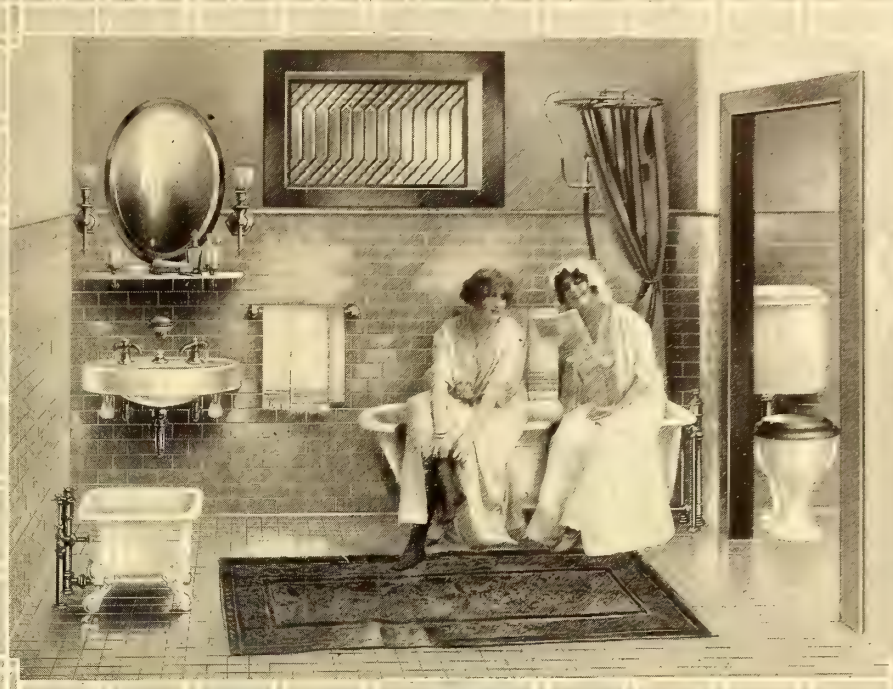
MEXICAN CACTUS FOR EXPORT

CONSUL Wilbert L. Bonney, of San Luis Potosi, Mexico, states that there is some demand for cactus seeds and plants from European cities for ornamental purposes, and also for medicinal purposes. Shipments from San Luis Potosi to continental Europe have arrived in good condition, and it is said that some of the plants that can be had for a few cents in Mexico bring fancy prices in the cities of northern Europe. Consul Bonney has forwarded a list of the cactuses that are obtainable in San Luis Potosi; it may be obtained upon application to the Bureau of Manufacturers.

AN AMERICAN COMMERCIAL CONGRESS

THE Secretary of State has sent a circular letter of instructions to diplomatic and consular officers in Latin America advising them of the interest of the Department of State in the work of the Southern Commercial Congress, which maintains headquarters at Washington, and inviting attention to the next convention of this organization which is to be held in Mobile, Ala., in the Fall of 1913.

Delegations from the Latin-American Republics are expected to attend this convention, and it is also planned to establish exhibits of the products, especially exports, of these countries, together with maps, charts, and literature, in the headquarters of the Congress. The Department of State cordially indorses these plans and directs diplomatic officers of the United States to ask the co-operation of the countries to which they are accredited in bringing the republics of the Western Hemisphere into closer trade relations through participation in the Fifth Annual Convention of the Southern Commercial Congress. Consular officers are directed in the Secretary's letter to bear in mind the interest of the Department of State and to supply inquirers with such information as may be available for the purposes of the Congress.



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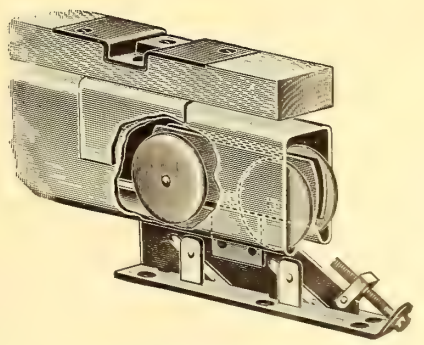

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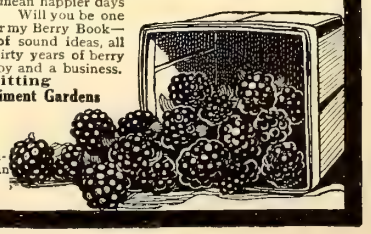

A VILLAGE FLOWER FAIR

By HENRY W. FOSTER

RIVALRIES among home garden makers may sometimes be made to serve the general good of an entire community. In a certain large village there are gardeners, who, during the past few years, have developed garden spots of surprising beauty and extent. One is particularly proud of her Hollyhocks, and the large collection which forms her garden's chief glory contains almost every variety, single or double, known to horticulturists, besides several kinds which defy classification. In another garden is an especially beautiful array of Phlox and Canterbury Bells, where their tall groups of brilliant coloring challenge the emulation of the entire village. Asters are the pride of still another amateur gardener and elsewhere other flowers have been brought to such perfection that there seems little still to be achieved. Each of these specialties, however, had competitors so that no one could claim undisputed title to the pre-eminence which each garden maker felt was particularly hers.

Village enthusiasm and the competition of individual gardeners had resulted in much beautifying of certain portions of the community but no effort had been made for the improvement of the village as a whole. The opportunity existed and enthusiastic workers were at hand when someone suggested a "Flower Fair" at which the claims of rival horticulturists should be carefully weighed and decided and which, at the same time, might produce the nucleus of a society or league for village improvement. That ample time might be given for all possible work and development upon the part of individual exhibitors the date of holding the "Fair" was placed in August. Preparations were begun in June and a decision was then made by those who were in charge of the different classes of flowers to be entered and the value of the prizes or ribbons which should be given. Besides this giving of prizes for special classes of flowers several prizes were offered for the most beautiful amateur gardens and for the new gardens which should show most successful results at the time of the "Flower Fair" in August.

The days for holding the "Fair" found preparations fully made, for during several months the gardeners of the village had put forth unusual efforts in the cultivation of their flowers, particularly of such as were to be entered in competition for prizes. The exhibition was held in the town hall the free use of which had been donated by the Village Fathers, and the village band donated its services for the two afternoons and evenings during which the "Flower Fair" was in progress. The town during August was usually filled with visitors from the city and a large number of patrons paid the admission fee into the exhibition. In one corner of the hall a refreshment department was managed by one group of women and in another corner a candy counter swelled the receipts of the "Flower Fair" to a surprising figure.

The prizes given the successful exhibitors as well as everything used in the "Fair" had been donated by individuals or business firms interested in the work which the exhibition was to accomplish, and the returns when counted, greatly exceeded the expectations of even the most enthusiastic workers; so large was the sum realized that an improvement which had long been desired suddenly became a possibility. In the most conspicuous part of the village, at a point where two streets meet, is a small triangular piece of ground which had long

been covered with rubbish and débris. All proposals for its purchase had resulted in nothing on account of the prohibitive price which its owners placed upon it. The unexpected success of the "Flower Fair" made possible the securing of the triangle and its being made into a tiny park, suitably planted and beautified with a small fountain in the center of a lily pool. But perhaps the most important result of the "Fair" was its leading to the formation of a society or crusade for the improvement of the Village. With such work definitely in the hands of some of the most enthusiastic and public spirited of the villagers the aspect of the entire place has become changed. Trees have been planted and are being cared for during their period of growth; the most objectionable of the business sections of the village have been wholly removed and the buildings which remained have been greatly improved. Co-operation with the railroad officials resulted in the beautifying of the grounds about the station which is highly important for many people who know little of a village judge entirely by what is seen from a car window.

This may suggest the forming elsewhere of some similar plan for the encouragement of garden making which means so much for the average village or small town, and, in the case just referred to, it may be made to produce some helpful and durable means of adding to the beauty and attractiveness of the community. Almost everywhere there exists opportunity for some such form of village adornment and interest is often felt in any method of accomplishing such an achievement which also lends encouragement to individual garden makers and affords social enjoyment of much value. There is no denying the value of concerted and united effort where anything like village improvement is the thing aimed at. The value of individual effort is multiplied many times when the individuals are banded together in some form of organized work. The villages which are the slowest to respond to such united action are usually those where the most need for such work exists and are almost always the places where the greatest enthusiasm prevails and the most marked improvement noticed as soon as such a plan for systematic village betterment has been organized.

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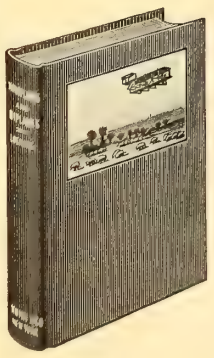

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NEW BOOKS

THE RUSSIAN YEAR-BOOK FOR 1912. Compiled and edited by Howard P. Kennard, M.D., and Netta Peacock. New York: The Macmillan Company. 1912. Cloth. 8vo. 428 pages. Price, $5 net.

With the growth of public interest in the affairs of all nations, the value of national handbooks such as Dr. Kennard's "Russian Year-Book" is quickly apparent. The present volume is the second annual issue and the chapters on Rights of Foreigners, Education, Agriculture, Municipal Progress and Labor, and General Information for Travelers are among the many that are welcomed by one seeking general information on Russian topics. In addition to a number of original articles, the sources from which the "Russian Year-Book" is compiled include Official Reports of the Ministers of Finance and Commerce, the Reports of the Central and Statistical Committees, Consular Reports, and notes in various periodicals.

ARCHITECTURE. By W. R. Lethaby. New York: Henry Holt & Co. 1912. Cloth. 16mo. 251 pages. Price, 50 cents net.

Mr. Lethaby's handbook on Architecture is an excellent introduction to the history and theory of the art of building, which can be read with profit not only by every home-builder but by the student of history, of architecture and of art as well.

THE LIFE OF GIORGIO VASARI. A Study of the Later Renaissance in Italy. By Robert W. Carden, A.R.I.B.A. New York: Henry Holt & Co. 1911. 8vo. 367 pp. Price, $4.

Imbued with the decadent ideas of his century, Vasari, in spite of his contemporary fame, can scarcely be said to be more than a copyist of his master, Michelangelo. Fortunately for posterity, he used his pen to better advantage than his brush, and has left us three volumes of invaluable history, appreciation, and comment concerning Italian art. Where the works of others were concerned, his eye was marvelously unenvious and discriminating. This clairvoyance, aided by his opportunities for commingling with personages royal by blood and royal by genius, has given us writings of the most enchaining interest. These alone would be excuse enough for an extended biography of their author, but Mr. Carden makes another ingenious point when he argues that Vasari's history of the arts through infancy and youth to manhood leaves them there in the fullness of their mature glory, unconscious of the fact that the shadow of senility had already fallen upon them. This period of decay, the writer further urges, coincides with the sixty-three years of Vasari's own life; hence in Vasari himself we have a human document surcharged with the unsuspected pathos of art's hectic Autumn—a period no less significant in its way than the Spring and Summer of its promise and fruition. This significance is admirably conveyed by the biographer, and is accentuated by many rich plates reproducing the canvases of Titian, Bronzino, and Vasari himself. These exhibit to excellent advantage both the strength and weakness of Vasari's hand. The text is of a free, flowing style, does thorough justice to its subject, and forms a distinct contribution to the accessible literature of Italian art.

AERIAL NAVIGATION. By Albert Francis Zahm, A. M., M. E., Ph.D. 485 pp.; illustrated. New York: D. Appleton & Co., 1911.

It would not be too much to say that Dr. Zahm has given us the best popular book on the airship and the aeroplane. No less could be expected of a man who is probably the foremost authority on aero-dynamics in this country. A work such as this is to be particularly welcomed at a time when the market is flooded with popular books on aerial navigation, written for the most part by men who know little of the subject, except what they have read in popular magazines and newspapers, and who are trying to turn an honest penny by writing books which are supposed to meet the popular demand for information. Our only regret is that Dr. Zahm's book should not have appeared earlier. Dr. Zahm has treated his subject historically, but has carefully excluded, as he tells us in his preface, those experiments which, however picturesque or clever, constituted no advance in the art or led to no useful result. The result is a very compact presentation of what is really historically valuable. The book is divided into four parts; the first deals with the growth of aerostation, the second with the growth of aviation, the third with aeronautical meteorology, and the fourth is composed of appendices. Though frankly intended for popular reading, Dr. Zahm's book gives every evidence of scholarly research. Here will be found clearly laid down the actual contributions made in the development of the dirigible by Haenlein, Woelfert, Santos-Dumont, Col. Renard, the Lebaudys and Zeppelin, and the part played by Henson, Ader, Stringfellow, Chanute, Langley, Lilienthal, Herrgin, Wright, Montgomery, Santos-Dumont, Farman, Curtiss, Blériot and the rest in the development of the aeroplane. Unlike most of the popular books of the day, Dr. Zahm's contribution is strictly up to date, for it brings the development of the aeroplane and the airship down to the end of 1910.

THE SECOND BOYS' BOOK OF MODEL AEROPLANES. By Francis A. Collins. New York: The Century Company, 1911. 8vo.; 262 pp. Illustrated. Price, $1.20 net.

The length of flight of the model aeroplane is now ten times that of the earlier models, and much of this improvement is directly traceable to boy students and workers. In this delightful volume are pictured more than fifty different types, resembling all sorts of animate and inanimate objects from a mosquito to a rat-trap. Some of them show great ingenuity, and are capable of remarkable things. As to motive power, a flight of half a mile is possible by means of twisted strands of rubber, while with the miniature gasoline motor distances of a mile have been traversed in single flights. Instructions for making and flying the models accompany the plates; there are practical rules for conducting races and tests, and the draft of a constitution and by-laws for a model aeroplane club. A catechism on aeronautical problems and practice is given, with a glossary of aeronautical terms. It is a book to warm the heart of the boy mechanically inclined.

A LUTE OF JADE: SELECTIONS FROM THE CLASSICAL POETS OF CHINA. Translated by L. Cranmer-Byng. New York: E. P. Dutton & Co., 1911. Cloth; 16mo.; 116 pages. Price, 60 cents net.

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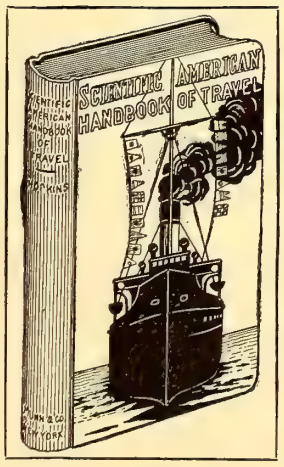

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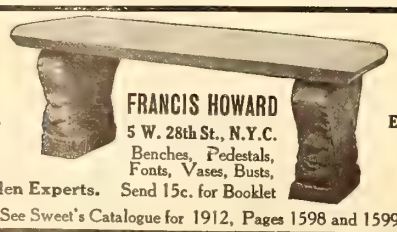

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FOREST AND TOWN POEMS. By Alexander Nicholas De Menil. Second Edition The Torch Press, New York and Cedar Rapids, Iowa: London: 26 Henrietta Street, Covent Garden, W. C. 1911. Cloth, 16mo.; 137pp. Price, $1.25.

A small volume of poems by Alexander Nicholas De Menil with the title of Forest and Town has recently been issued in a second edition form. These are assembled under the heads of: Nature; Love; Friendship; Death and Miscellaneous. The poet avows that his verse is only written to picture the restless spirit of the age, and in accomplishing this he has the courage of inventing new forms of versification; the over-zeal of here and there painting an inconvenient subject; and in social problems where he should have been content with the right to attack, he is too abusive. Again he is bold, for in the translation of a song of Moreau's he confesses to have taken great liberties. De Menil writes with pathos and gentleness of many things that put song into his heart; he hails them as dreams of youth and hopes gone by and kisses his hand to all their pretty ways, as he puts it. His touches are radiant with sincerity, and a human interest penetrates with him the multitudinous haunts of Nature. "The One Fair Woman"; "The Face at the Window," remind one at times of a strong line in Wilfred Scawen Blunt, but not in the direction of that Sonneteer's strength in escaping didacticism. After reading all the poems one is somewhat free to feel that as a whole they inspire praise for much that is beautiful and fervid.

EGYPTIAN ESTHETICS. By René Francis. Chicago: Open Court Publishing Company. 1912. Cloth. 8vo. 276 pages. Price, $2 net.

The author of *Egyptian Esthetics* sets out to show that the appeal of Egypt to those who know the land of the Pharaohs is summarized in the premise that she is and always has been artificial, thus inspiring at once both dislike and attraction, appealing in vain to the material side, to the perception, but awakening immediate response by her appeal to the mind and to the imagination. As to the works of art that have come down through her history, the writer says, "If you see them merely as great works of great ages, you cannot but marvel, but if you pierce their secret, and see them with the mind as well as with the eye, then you have something more than mere wonder, for you know them, and they remain with you eternal possessions, the more eternal for that they are votive gifts to eternity. This is a volume that is a welcome addition to our store of Egyptology.

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Scientific American Supplement 1112 describes the Filtz Rotary Motor, using helical surfaces.

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Scientific American Supplement 1309 describes The Colwell Rotary Engine, in which a piston travels entirely around an annular cylinder.

Scientific American Supplement 1524 describes Rotary Engine on the intermittent-gear principle.

Scientific American Supplement 1534 contains a valuable column on the difficulties of rotary engine design.

Scientific American Supplement 1821 contains an article describing many new forms of rotary engines of the most modern design.

Scientific American, No. 23, Vol. 102 contains a full description of the recent Herrick Rotary Engine, an eccentric type with swinging abutment.

Scientific American, No. 23, Vol. 104 describes Jarman's Engine, on the sliding-valve principle.

Scientific American, No. 14, Vol. 106 describes the Augustine Rotary Engine, with novel features incorporated in the sliding-valve design.

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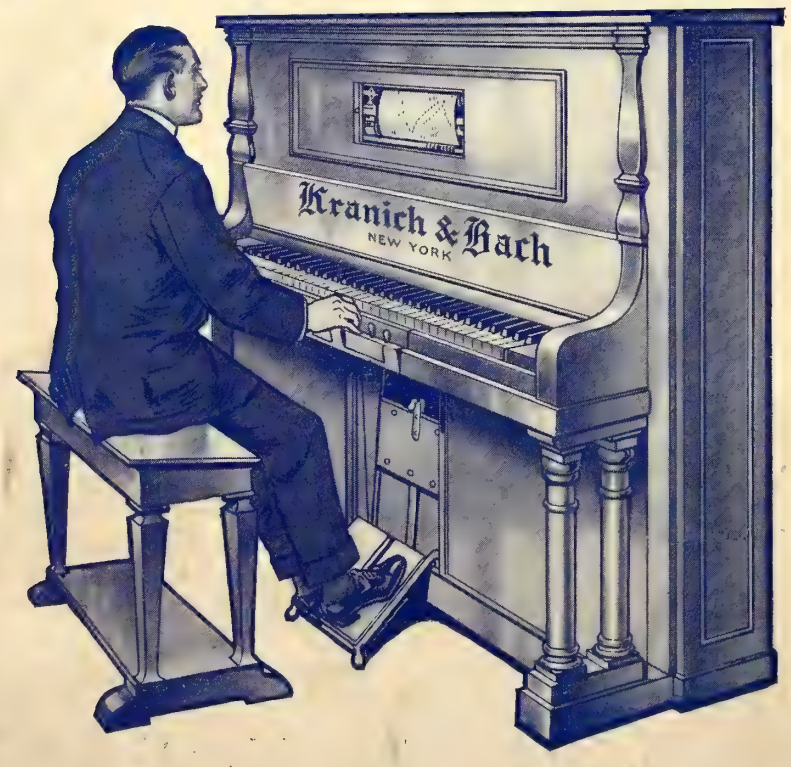

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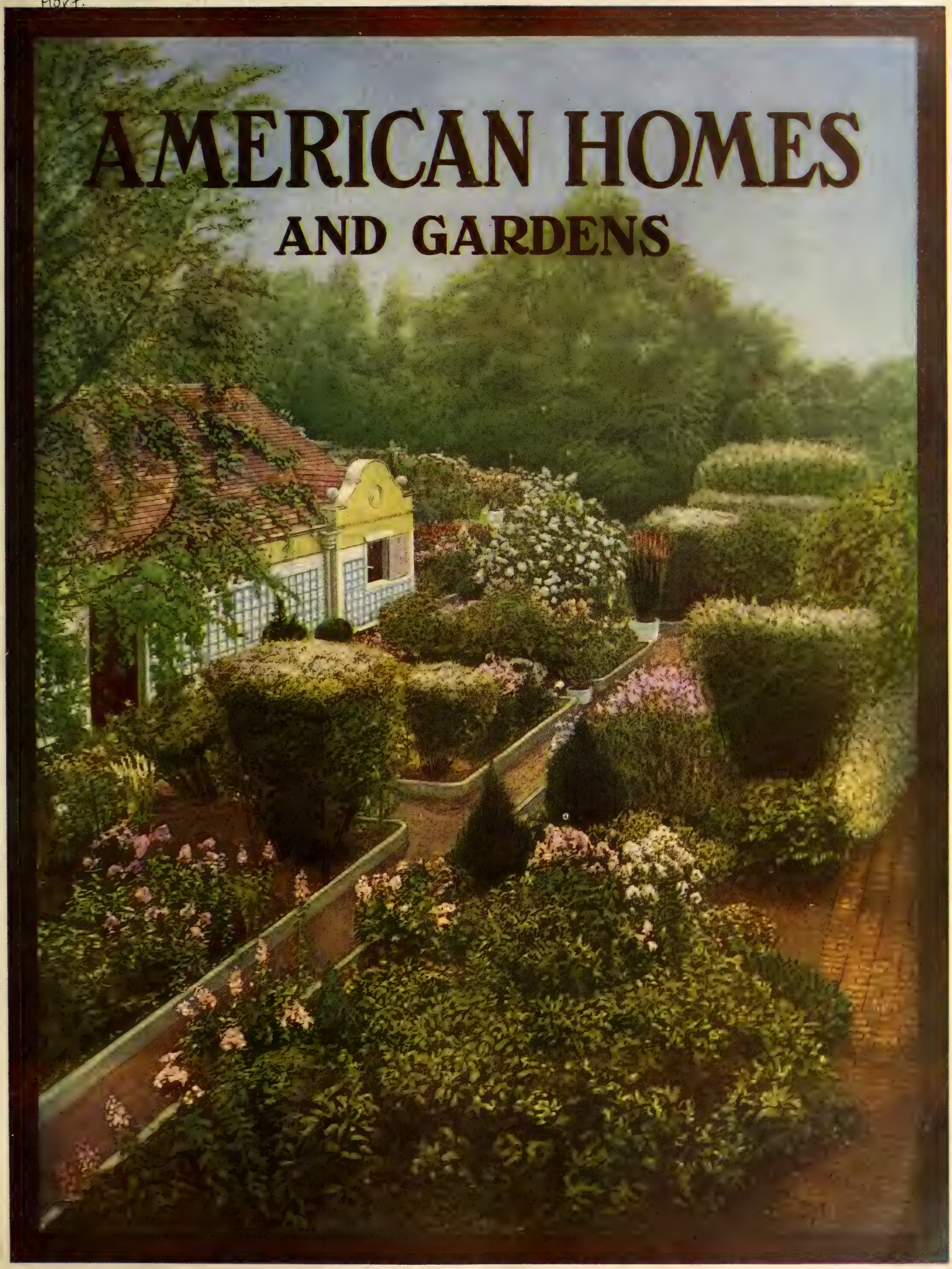

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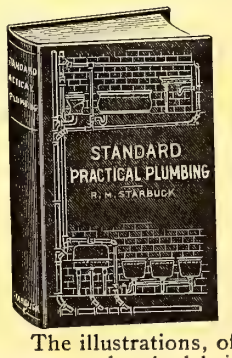

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THE WHITE EGG HENS

By E. I. FARRINGTON

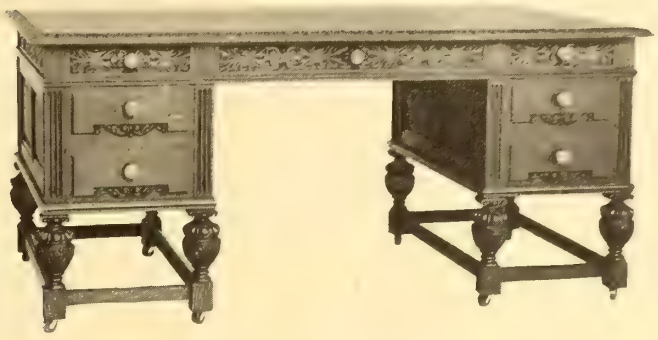
OF course, the color of an egg really has no influence on its quality. Richness and flavor are determined by other factors, entirely. Yet in many sections buyers pay a premium for eggs which are snowy white, so popular are eggs of this color. That is the reason why only White Leghorn hens are found on most of the large egg plants in the vicinity of New York city and in other parts of the country, notably California, which is sometimes called the land of the Leghorn. The Boston market, for some unaccountable reason, goes to the other extreme and demands dark brown eggs.

The amateur who prefers white eggs has a long list of breeds to select his laying hens from, all of them belonging to the Mediterranean or French classes. Undoubtedly, the White Leghorn heads the list, being nearest an egg machine of any fowl yet developed. The Leghorn as now bred in this country is quite a different bird from those first brought from Italy. To all intents and purposes the breed has been Americanized, and the Leghorns seen here are larger and different in many ways from the Leghorns found in England, where the breed is also popular. There are single and rose comb varieties in white and brown and single comb buffs, blacks and silver duckwings, although the two named last are not common. The white and brown varieties are the two most often seen, but the White Leghorn is given the preference, because it lays the larger eggs and those which are uniformly pure white. In some markets White Leghorn eggs are the standard and are sold by name.

Leghorns are too small to be satisfactory table fowls, although the meat is tender and sweet. They are rather wild, fly like birds and can crawl through very small holes. On the other hand, they are light eaters, lay when five months old and are non-sitters, seldom becoming broody. They lay well in Winter, although the long combs of the single-comb varieties are likely to be touched by frost in very cold weather.

The Anconas are a white-egg breed which is growing rapidly in popularity. The hens are remarkably prolific and both hens and cocks are very attractive. The birds are mottled black and white, about every fifth feather being tipped with white. The tendency is to breed them a little heavier than the Leghorns and some breeders have been accused of introducing Minorca blood to secure this result. The tail is carried somewhat higher than the Leghorn tail and the breast is rather full.

Anconas are very lively, but stand confinement well. If the yard is small, they will easily scale a five-foot fence, but are less likely to seek escape from a large yard. The chicks are unusually attractive and grow their feathers quickly. They are spared the awkward, half-bare



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appearance seen in chicks of larger breeds. Often they lay before they are five months old and lay persistently for months. The eggs are fairly large and generally pure white, although slightly tinted eggs are occasionally found. Though they are classed as non-sitters, the hens are prone to become a little broody in early Summer, but are not to be trusted with eggs or chickens. This is strictly an egg-laying breed, but the flesh is of fine quality and there is enough of it to warrant serving the birds on the family table.

The one white-egg breed which supplies a liberal amount of meat, however, in the Minorea, of which the black variety is the one commonly seen. The Black Minorca is an excellent fowl for the amateur. It is almost as large as a Plymouth Rock and the eggs are the largest, on the whole, of those laid by any hens in its class. The hens are very prolific and lay well the year around. They have exceptionally long combs, though, something of a disadvantage in cold climates and the skin is white, so that the Minorcas are barred from the fancy markets as table poultry, yellow skin being in demand in this country. The legs are dark, also, another point against this breed. The amateur, however, who insists upon white eggs and still wants birds which will provide a generous amount of meat for the family table, must needs consider the Minorcas, as being the heaviest of the non-sitting and white-egg breeds.

Next should be named the French fowls known as Houdans, the only French breed popular in this country. No amateur can keep a flock of Houdans without finding pleasure as well as profit in them. They are handsome, tame, friendly, prolific and easily confined. They weigh half a pound less than Wyandottes, which means that they dress well for the table. It is true that the skin is light in color and the legs far from the golden yellow which our markets seek, but this fact makes the birds none the less valuable for home eating. This insistence upon yellow flesh and yellow shanks is only an American notion, anyhow. The French people much prefer the flesh of Houdans to that of any American breed and their judgment on matters epicurean is hardly to be questioned.

The Houdan is mottled black and white and has a peculiar crest on its head, which prevents it looking skyward readily, so that an ordinary poultry fence will confine a flock of these birds. A fifth toe is a curious characteristic, but as it turns up does not aid it in walking or scratching. Houdan eggs are especially fertile and the chicks grow remarkably fast. Altogether this is an interesting breed.

There are several other white-egg breeds, but for the most part they are raised only by fanciers. The Andalusians, which have light blue feathers, are odd and pretty and really are practical fowls. They lay well and the eggs are of good size. Although classed as non-sitters, the hens become broody to some extent. The Hamburgs are astonishly prolific, but the eggs are small. The various varieties are prized for their beauty of feather and generally stylish appearance. They are easily frightened, fly high and ought to have a wide range to do their best. The Black Spanish and Polish are breeds for the fancier rather than for the amateur whose principal aim is eggs and plenty of them.

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"In addition to the agricultural 'high schools," says Mr. Pool, "there are five other high schools devoted to teaching veterinary science.

"The Agricultural High School in Berlin, founded in 1870, contains a department for agriculture, one for geodosy, one for irrigation and draining, and one for agricultural-technical processes, such as distilling, brewing, sugar manufacturing, etc. Its teaching staff embraces twenty or more professors and a somewhat larger number of assistant masters and instructors.

"Agricultural institutes exist in the classical universities of Breslau, Göttingen, Halle, Königsberg, Leipsic, Jena and Giessen. Like the special agricultural high schools just described, their purpose is to afford a scientific training for the heads of large agricultural undertakirgs, whether owners, tenants or managers.

"Below the agricultural high schools and the agricultural institutes of certain of the universities come the intermediate agricultural schools, which, however, are not necessarily simply a step to the collegiate training just described, but in most cases, it would appear, are an end in themselves. They are called "Landwirtschaftsschulen," or agricultural schools, as distinguished from the "Hochschulen," or high schools. Their character is that of what is known in the general or unspecialized educational system as the "Realschulen," or burger school, the curriculum of which corresponds in a general way to that which an American youth would pass through in completing a "modern" or "modern classical" course in one of our high schools. To the subjects of the "Realschulen" the agricultural school adds rural economy, to which some four or six hours are devoted weekly, and gives to natural science an important position with eight to ten hours weekly. This necessarily restricts the teaching of general cultural subjects, such as languages, history, etc. Experimental fields, fruit and vegetable gardens are often attached to these schools.

"According to the latest Statistical Yearbook, at the close of 1908 there were eighteen agricultural schools in Prussia alone. The total attendance in that year was 3,940, and the several teaching staffs comprised 220 individuals. During the previous year the Prussian Government had contributed $114,835 to their support, and local Governments, private organizations, etc., $50,499.

"Alongside the agricultural schools stand the 'Ackerbauschulen,' or farming schools, concerning which an authoritative writer says:

"The pupils, of the age of 15 and 20, are mostly sons of farm owners or tenants. They (the schools) are established partly by individual practical agriculturalists, partly by agricultural societies, partly by endowments. All, however, are under State control, and nearly all of them receive sub-

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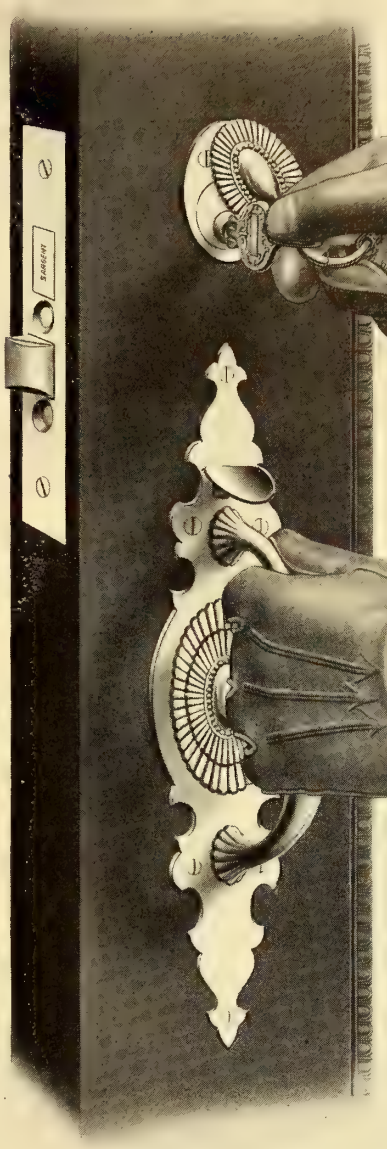

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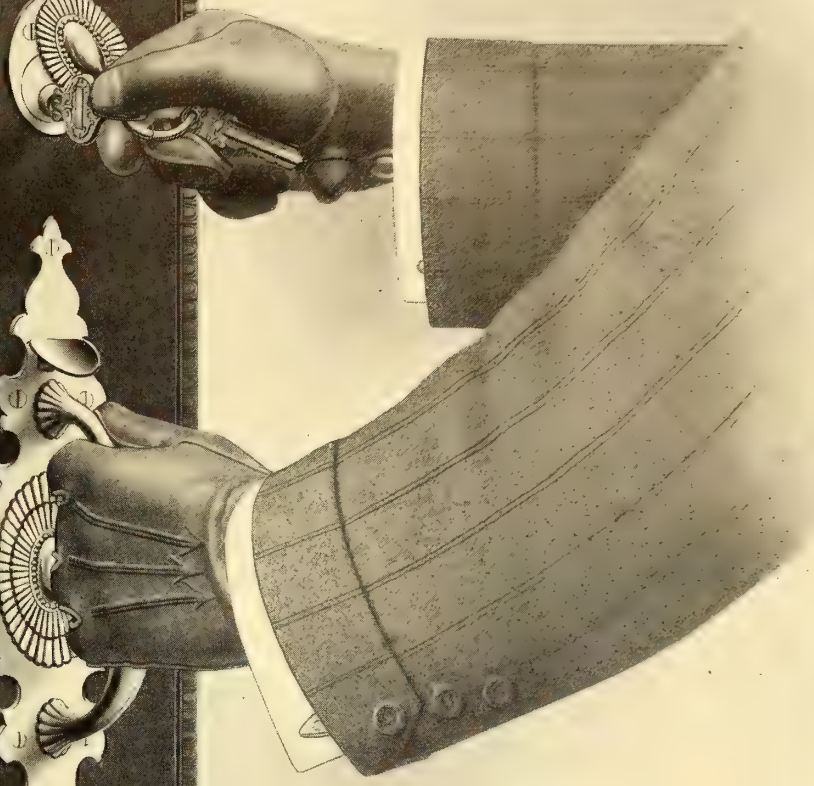

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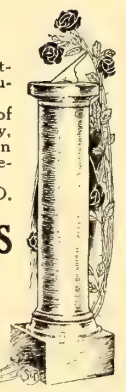

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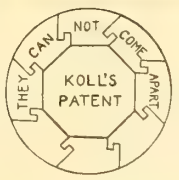

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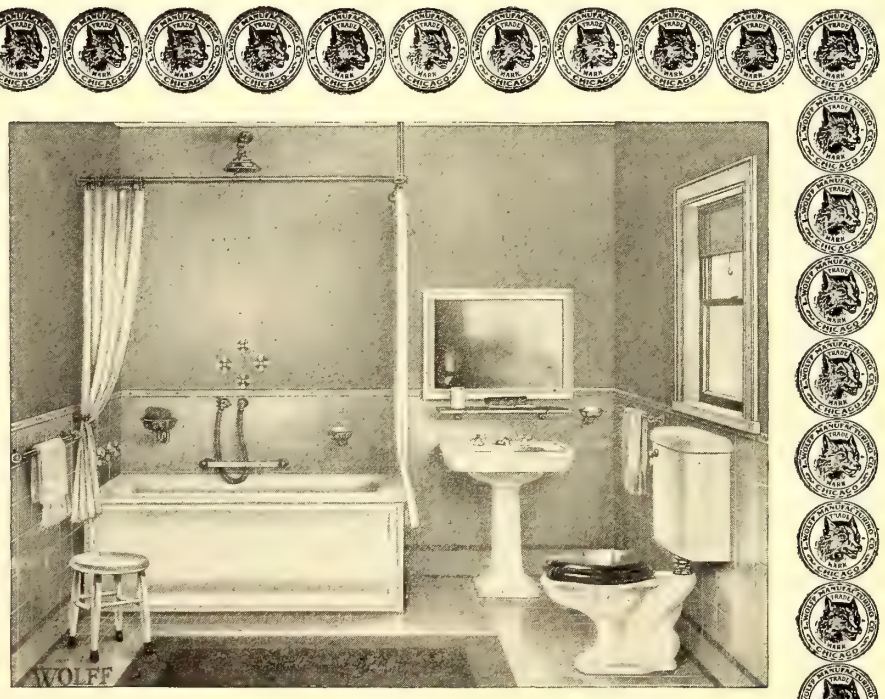

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sidies from the State or from public corporations. They are in the country in connection with a smaller or middle-sized estate. The head of the estate, whether owner, tenant, or manager, is at the same time director of the institution. The pupils are full boarders. In return for this and for the teaching they pay boarding and school fees. Many of the farming schools admit pupils without payment or with half payment."

The instruction is both practical and theoretical, preferably the former in the Summer, the latter in the Winter. The practical teaching extends to all kinds of agricultural labor, which every pupil must learn to perform by continued personal application.

The theoretical teaching is given in the elementary subjects, in rural economy, in natural science (a subject of special importance to agriculture), in horticulture and fruit growing, in veterinary science, frequently also in select sections of natural economy and agricultural law. The complete course lasts two years. Admittance is conditional on previous elementary education and knowledge of simple agricultural practice.

"There were seventeen farming schools in Prussia alone at the end of 1908 attended by 1,011 pupils and having an aggregate teaching staff of 137. In 1907 the Prussian Government contributed $6,979 and local Governments, private organizations, etc., $33,988 to their support.

"Continuation schools, in which those who have completed their elementary education and have begun their life's work receive further general or special instruction, are a prominent feature of the German general educational system, and are maintained in agricultural as well as in industrial districts. In the agricultural districts they are intended chiefly for strengthening and extending the elementary education of the rural population, but in some of them technical agricultural instruction is also given. The teaching is conducted principally in Winter, during some evenings of each week and often on Sunday afternoons. In the agricultural districts of Prussia, at the close of 1908, 3,781 continuation schools were attended by 55,889 pupils and cost $136,636 for their maintenance. In seven of these schools, attended by 171 pupils, specialized instruction in agricultural subjects was being given at a cost of $454. No doubt the proportion of these latter schools has subsequently increased.

"Of a somewhat similar nature are the possibly more important agricultural Winter schools. These are attended by young farmers 15 to 20 years of age, and resemble the farming schools already described, except that the teaching is purely theoretical in its nature, the pupils being engaged on their fathers' or others' estates in Summer. Otherwise the subjects and manner of instruction are not different, and the daily hours of teaching being many, the same theoretical knowledge may be obtained by two Winters' attendance at one of these schools as by two years' attendance at one of the farming schools. The schools are conducted by qualified directors, who are generally occupied during the Summer months as visiting lecturers.

"At the close of 1908 there were 184 agricultural Winter schools in Prussia, having 1,382 teachers and 7,273 pupils. They received for their support $88,480 from the Prussian Government and $160,263 from local Governments and private organizations."

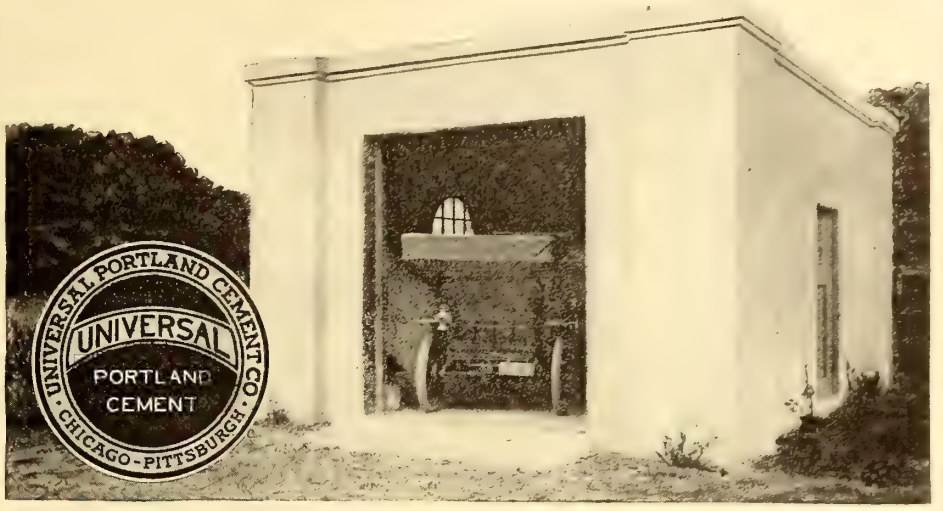
COLOR OF YOLKS OF EGGS

EVERY one has noticed how the coloration of the yolks varies from one egg to another, shading from very pale yellow to reddish orange, says a writer in the *Revue Scientifique,* translated for the *Literary Digest.* The literature treating of hen's eggs is very large, yet few writers have been attracted by this question of coloration. Noticing, several years ago, that the observed differences of color are without any effect on the intrinsic qualities of the yolk, which remains equally nutritive and equally valuable in reproduction, Morris attributed the initial cause of the color to the nature of the food.

Starting with the fact that it is paler in Winter and with hens living in unscientific quarters, he inferred from this that the more intense coloration of the yolks of eggs laid by hens living at liberty was due to the coloring-matter of the green plants, and of the insects that these fowls eat in large quantities. After complex chemical transformations these pigments from the foodstuffs reach the ovary, whose fatty cells fix it, owing to a special affinity. . . . Consequently hens should be placed in better conditions of life, by giving them spacious grassy runways, and during the Winter supplying them, in the absence of fresh food, with grain, salad, cabbage, beets and carrots, crushed or finely chopped. Apropos of this question of coloration *L'Acclimatation* tells us that, after repeated complaints from their customers, certain associations of English breeders have drawn the attention of producers to the desirability of obtaining yolks of a higher color, and hence more nutritive, by placing the hens in proper conditions of hygiene and nutrition, and by giving them water having iron in solution, twice a week. This thesis, which is very different, as may be seen, from that of Mr. Morris, attributes to the coloration of the yolks an influence on their nutritive power, and recognizes as its cause their content in iron. Neither of these two opinions is based on precise experiments, but both lead, fortunately, to the same practical measures. Giving healthful and abundant food to hens, and placing them in sanitary surroundings, will assure them the strength nec ssary to good layers.

AUTOMOBILE EXPORTS

THE automobile industry in the United States has grown to such proportions, says the New York *Times,* that the exports of automobiles to foreign countries have, during the fiscal year ended June 3, reached the total of at least $27,000,000. Ten years ago the exports of automobiles and parts did not amount to $1,000,000. The automobile industry is growing more rapidly in the United States than in any other country. France still leads the world in the value of exports, but is rapidly falling back, and last year shipped abroad automobiles to the value of $4,000,000 in excess of our foreign shipments this year. Our exports of automobiles are now greater than those of any other country except France. During the last three years the value of automobiles exported has increased 300 per cent. Approximately 25 per cent. of our automobiles shipped abroad go to Canada, and about 40 per cent. to Europe, chiefly to Great Britain; 29 per cent. to Australia, and 8 per cent. to South America, the remainder being widely scattered. The remarkable decrease in price is not entirely due to the effort of the manufacturer to reduce the cost of the machine, but in a large measure to the exportation of second-hand machines.



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It is best observed at sea. Though the ships of today are larger than the ships of fifty years ago, you cannot see them until they come up over the edge of the world, fifteen or twenty miles away.

A generation ago the horizon of speech was very limited. When your grandfather was a young man, his voice could be heard on a still day for perhaps a mile. Even though he used a speaking trumpet, he could not be heard nearly so far as he could be seen.

Today all this has been changed. The telephone has vastly extended the horizon of speech.

Talking two thousand miles is an everyday occurrence, while in order to see this distance, you would need to mount your telescope on a platform approximately 560 miles high.

As a man is followed by his shadow, so is he followed by the horizon of telephone communication. When he travels across the continent his telephone horizon travels with him, and wherever he may be he is always at the center of a great circle of telephone neighbors.

What is true of one man is true of the whole public. In order to provide a telephone horizon for each member of the nation, the Bell System has been established.

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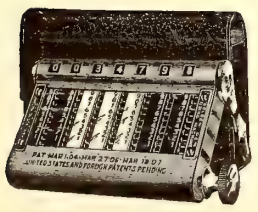

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CHINESE BLACKWOOD FURNITURE

A CHARACTERISTIC product of China, known around the world and admired in varying degrees by foreigners generally is Chinese blackwood furniture, commonly including cabinets, chairs, stools, stands, pedestals, center and side tables, frames, and most other drawing-room pieces, elaborately carved and decorated and manufactured or supposed to be made from a blackwood, writes Consul General George E. Anderson at Hongkong to the United States *Daily Consular and Trade Reports*. This furniture, if real in all respects, is produced from various dark woods, generally from *Dalbergia latifolia*, a hard, heavy, close-grained, dark-red wood known to the Chinese as "ka-hee" or "furniture wood," or sometimes as "sun-gee" or "dark-red wood." When exposed to the air for a long time this wood turns dark and eventually becomes black, with more or less red streaks in the grain corresponding to the amount of resinous or other natural coloring matter in the grain. It is imported as logs of as much as 18 inches in diameter and up to perhaps 20 feet in length, but also as tree branches and smaller pieces, the Chinese affecting pieces grown crooked for use in natural shape in some of their furniture. The wood is bought by weight, an average wholesale consignment costing 3 to 4 taels a picul or about 1½ to 2 cents gold per pound.

Originally the Chinese used this wood for their own fine furniture and for wood bases or frames for porcelains, jade carvings, or other ornaments for display in drawing-rooms or cabinets. Chinese furniture ordinarily is quite plain, generally constructed in long curves or rounded corners, straight backs to the chairs, settees with straight backs, often set with porcelain or marble panels, and similar pieces, while bases for porcelains or other similar work were often beautifully carved. With the advent of foreigners in South China, however, there came a demand for a combination of furniture more or less on the Chinese model, which was carved instead of plain. The Chinese manufacturers eventually designed furniture somewhat on foreign models, with the popular elaborate carved ornamentation, the local demand for which spread into a world-wide trade. The actual volume of this trade is not large, the United States probably taking more of it than any other nation. Sales to the United States will probably not run over $50,000 a year, including shipments of household goods.

The furniture is prominently displayed in oriental shops all over the world, and is so especially characteristic of Hongkong and South China that there is unusual interest in it, and one of the first visits paid by tourists traveling in this part of the world is to blackwood shops and factories. Furniture of this wood is often referred to in the United States as teak furniture. Blackwood has no relation to teakwood and is distinctly different from it in nature and characteristics. Formerly most of this furniture was made in Canton, which still annually exports about $45,000 gold in value, practically all to Hongkong, besides various amounts shipped abroad as household furniture. In Canton, a district practically given over to making such furniture is a point of interest for tourists. Of late years these factories have sprung up in Hongkong where most of the product is actually sold to users and there are now eight such establishments listed by the Government. A few years ago there was considerable fraud in the business and soft light woods stained black were used in such goods just as most of the so-called cherry wood furni-

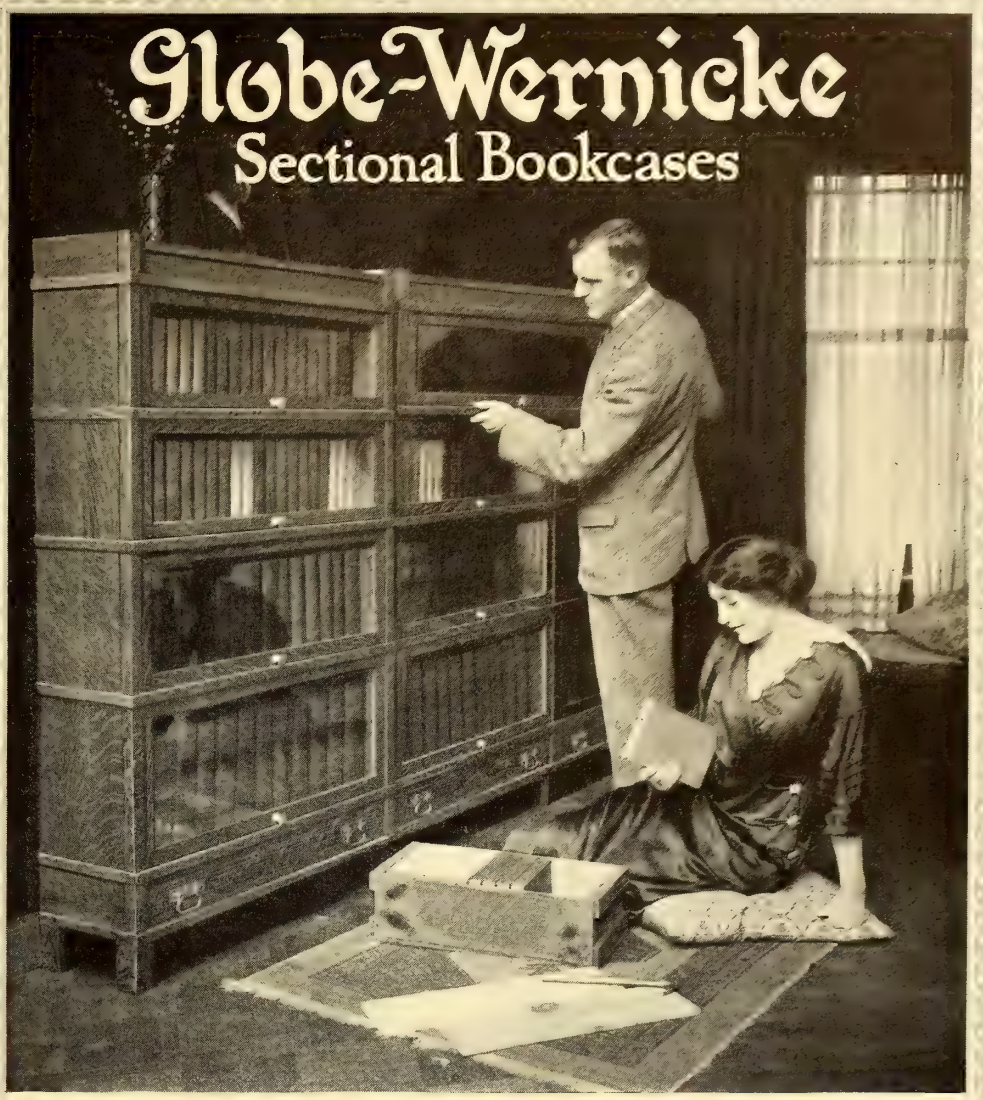
ture in Japan is now soft white wood stained cherry before finishing. The use of poor wood so injured the trade that the Chinese guild concerned decided to use only the real blackwood and this in Hongkong is characteristic of the trade, though of course there is still need to guard against inferior woods.

Practically all this furniture — even planed table tops and the most intricate and delicate fittings—is handmade. Furniture is planed in parts which generally dovetail together in order to eliminate screws or nails, and the various parts are shaped for the carver. The worker squats on the earth floor and works with various knives, chisels, and other tools of native workmanship but with no other vice or bench than his legs, toes, and the earth floor or, in exceptional cases, a log combination of seat and bench. Workmen in these shops are practically bred to the business. An apprentice serves three years with no other pay than his rice. He then earns perhaps $10 silver or $4.80 gold per month for several years. A full-fledged carver will ordinarily receive $20 silver or $9.60 gold per month.

When carved, the article is usually stained a uniform black by an alum preparation, then waxed with a preparation of wood oil and blacking and polished, or sometimes finished with a special preparation of Ningpo varnish. Foreign oils and varnish are sometimes used for special purposes, but as a rule only native materials are employed. Of late a demand has grown for the furniture in natural dark red of the wood, furniture nearer real and likely to become more popular as it becomes better known. A strong demand is growing for furniture manufactured from this wood on plainer lines and to some extent for settees and chairs in Chinese styles. The popularity of the furniture on the whole seems to be increasing, although there has been no material change in average volume of shipments.

FOREIGN SALT MARKET AND INDUSTRY

ALTHOUGH the United States is a salt-importing country, it disposes of considerable quantities of special refined salt in foreign countries, and the trade is increasing annually. A monograph entitled "Foreign Salt Market and Industry" has just been issued by the Bureau of Manufactures, showing the conditions of the trade in foreign countries and the possibilities of opening up or increasing the market for the American product abroad. This monograph pays particular attention to prices, wholesale and retail, of the various grades of crude and table salt, with the chief sources of importation or domestic production in each country. The most universal presence of salt in the various countries of the world makes a market for the crude American product out of the question. Refining, however, is a matter of some expense; but when conducted on a large scale, refined salt can be produced at a cost which will permit it to be shipped wherever there is a demand for it. So far the English "Cerebos" brand, a refined table salt mixed with substances to prevent caking, has held the chief place in the refined salt trade of the world. It has, in fact, established itself in almost every civilized country. The prices for this salt vary, in some places reaching as high as 20 cents per pound, the average being perhaps 10 or 12 cents per pound. The monograph shows that the salt is a Government monopoly in Ecuador, Peru, Venezuela, Italy, Roumania, Austria-Hungary, Switzerland, Servia, Turkey, Greece, China, Cochin China and Japan.



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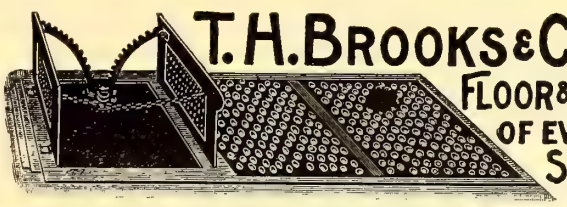

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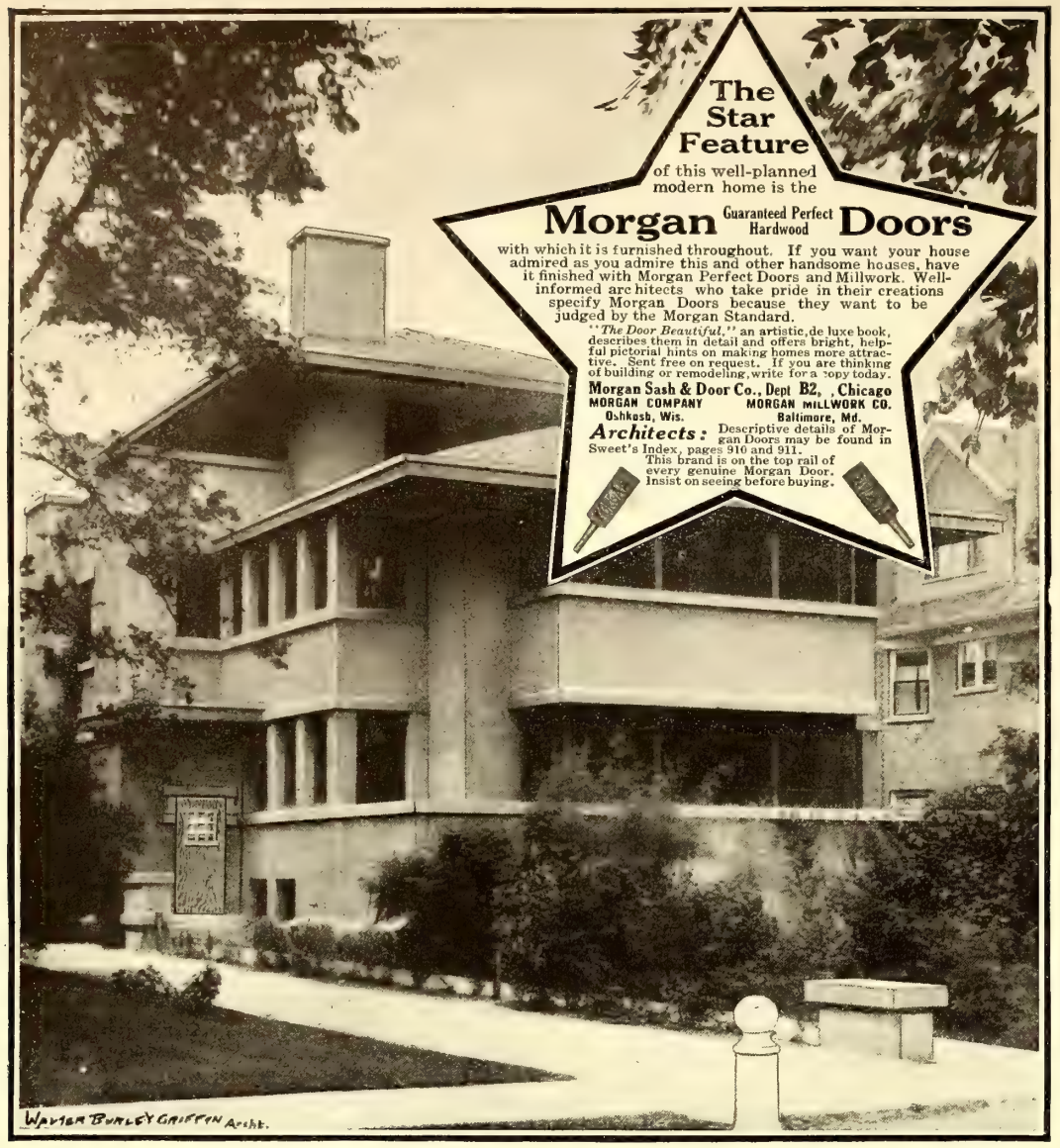

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THE EARLY HISTORY OF INDIA-RUBBER

AN article in *The Automobile* presents some interesting facts about india-rubber as first used by Europeans. Following the discovery of America an early Spanish writer made mention of the fact that the Haitians "played a game with gum balls," the first reference in literature of any suggestion of india-rubber. Mexicans were later mentioned as "making slits in trees to permit the flow of a pleasant smelling, milky gum." Another Spanish writer, whose book was issued in 1615, after describing the rubber-tree, says the Indians "used this elastic gum for medicine and the Spaniards used it for waterproof cloaks." Other interesting historical items in the article are the following:

"Lacondamine sent some of the dark, gummy caoutchouc from Brazil to the Paris Academy in 1736. With great difficulty chemists sought some sort of solvent for this, but not until 1761 was it accomplished. Herissont and Macquer then dissolved caoutchouc in oil of turpentine, rectified over lime, and obtained a mass that allowed the rubber to regain its elastic state. Ether was also used. Priestley, the great discoverer of oxygen, in 1770 found that rubber made a good eraser for pencil-marks. Two years later, Magellan induced the French to use rubber commercially, and its price was $5 an ounce. In 1798, J. Howison discovered a rubber-tree (*Urceola elastica*) in Penanh province, and Dr. Roxburgh announced another tree (*ficus elastica*) in Assam province.

"In 1791 Samuel Peal had already taken out the first patent in connection with rubber 'for the application of dissolved rubber to waterproofing.' A second equally useless patent was obtained twenty-nine years later by Thomas Hancock, April 29, 1820. In 1823, Charles Mackintosh received the patent on waterproofing fabrics by dissolving rubber in coal-oil, and built the first factory in Glasgow, removing later to Manchester.

"The fact that all articles made would not stand the stress of heat and cold led a German chemist, Professor Ludersdorf, to the discovery in 1832 that sulphur mixed with rubber dissolved in turpentine, removed all viscosity from the rubber. Here he stopped.

"Then, in 1839, Nelson Goodyear, an American, solved the riddle of the rubber question. He discovered how to produce rubber objects that would withstand all extremes of cold and heat. Nathan Haysard, his friend and partner, one day accidentally dropped some rubber mixed with sulphur upon a heated stove. When he picked it up, it was noticed that the sulphur was absorbed by the rubber, which kept its elasticity when afterward exposed to the hot sun. Goodyear, who had three years before started in the rubber business by getting United States Government contracts for rubber mail-bags, continued experimenting with this discovery, and in 1844 received his patents on the vulcanizing process."

FOXES NOT EASY PREY

FOXES often kill buzzards and the smaller hawks that have been impelled to attack them through hunger. They have mainly done this by dragging the birds through branches and brushwood; for they usually have their talons deeply imbedded in their intended victim, and are unable to let them go.

THE EDITOR'S NOTEBOOK

THE NOVEMBER NUMBER

THE next issue of AMERICAN HOMES AND GARDENS, the November number, will be introduced by a beautifully illustrated article describing one of the most interesting American homes at Tuxedo Park. The second article will be descriptive of a most attractive Massachusetts home and its interesting furnishings. Olden Time Bandboxes will be the subject of an article describing these little known relics of the days of crinoline, and the illustrations will be from photographs of bandboxes in the remarkable collection gathered by Mr. A. W. Drake, of New York. "Little Houses for Little People" is the subject of an article on playhouses, a fresh topic full of interest to the home-maker who realizes, as every home-maker should, the value of a properly-planned and designed playhouse for developing the child's sense of orderliness. The double-page feature for November will consist of a number of reproductions of photographs of attractive and well-designed chimneys. "Weather Vanes" is the title of another illustrated article out of the ordinary, and will present many suggestions for adding notes of interest to the home premises. A beautiful country home not far from New York city, a house of distinction and architectural character, will be described and illustrated with photographs of exterior and interior. Archery as a pastime for Americans is the subject of yet another article, and the November number will be further enriched by other contributions and by the usual departments, "Within the House," "Around the Garden," and "Helps to the Housewife" that have helped to make AMERICAN HOMES AND GARDENS maintain prestige in its field.

WILLIAM BOOTH AND THE SALVATION ARMY

A QUARTER of a century ago there was hardly a day passing when ridicule was not being heaped upon the shoulders of William Booth, founder of the Salvation Army. The public felt that the assumption of "General" by him, the blare of trumpets, the pounding of drums, the marshalling of his "soldiers" in uniforms and all that were matters for its levity. The death of William Booth marks a long standing revulsion in public sentiment which seems in itself a justification of the Salvation Army's work as directed by its restlessly energetic founder through years of sacrifice, devotion and sincerity of conviction that ennobles any cause. We need not concern ourselves with those methods which might awaken our criticism and of which, even to-day, we cannot all be expected to approve, but taking the Salvation Army's labors from the viewpoint of its social aspects alone, we must concede to it the accomplishment of a tremendous and uplifting influence. The sensitive may deplore the blatancy with which the organization appears to conduct much of its work, but it reaches out a helping hand too far beyond casual charity's feeble effort for even the comment of the sensitive to stand in condemnation. General Booth combined with his religious enthusiasm a rare zeal—even the zeal that permits a fanatic to accomplish incredible things—but it was a zeal well directed and guided by remarkable executive ability and the qualifications that lead to business success. William Booth, like John Wesley in his generation, brought about an awakening of a realization within us of the possibility of penetrating the darksome ways of modern life, which in this era before Booth's advent, had been too much shunned by those who sought souls to save in pleasanter and less dangerous places. The founder of the Salvation Army recognized the fact that the untroubled peacefulness of our homes depends upon the moral cleanliness of neighborhood environment. The greatest metropolis of America is now awakening to a public realization of its shameful bondage to organized vicious influences, an awakening which the Salvation Army in America has done much in an unadvertised way to bring about. Would that everyone of us were possessed of such zeal as made William Booth's name come to be honored throughout every land in the world, that everyone of us could walk along the path of his own perception of righteousness as undeviatingly as did this remarkable man, for the world needs thousands of men and women who are willing to assert their convictions, exemplify their principles and give the world one of those good old-fashioned moral housecleanings it only receives once in every three or four centuries.

VACATIONS IN WINTER

RECENTLY an attempt was made in Europe to interest employers in the subject of Winter vacations for employees. In commenting on this unsuccessful effort the New York *Times* has this to say: "The offer of some extra days—as many as there are weeks in the Summer vacation—will be tempting, of course, but more than counterbalancing the temptation will be a realizing sense that there are not nearly as many pleasant, healthful, and inexpensive things to do out of doors in Winter as in Summer. And freedom from work is most desired at the season when work is the most irksome and exhausting, which is during hot weather, and while a bank clerk may not greatly enjoy his labors when icy winds do blow, at least he does not then have to refuse any pressing invitations from forest and stream. It probably could be proved that the Summer vacation custom is advantageous to employers as well as to the employed, since it enables the latter to give better service to the former than would a vacation passed as it most likely would be in Winter.

"KNOW-YOUR-CITY" CLUBS

THERE is much that might be accomplished through "know-your-own-city" clubs. In the smaller cities throughout the country the task of gathering sociological data as a working basis should not prove an especially difficult one. Such clubs should meet at stated intervals and concentrate major effort upon some one civic problem that through energetic and well-directed effort might be solved to the betterment of the conditions it affected. In connection with this work, an outline map of the city wherein such a club might be located would be an invaluable aid, when properly charted to indicate slum sections, factories, amusement places, etc., in planning a study of the cities we live in and in our united efforts to make them clean and decent.

WHITE TOWN CARS

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AMERICAN HOMES AND GARDENS

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The White Egg Hens — New Books — Editor's Note Book

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MUNN & CO., Inc.
Publishers
361 Broadway, New York

FREDERICK CONVERSE BEACH
Secretary and Treasurer

Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

Copyright 1912 by Munn & Co., Inc. Registered in United States Patent Office. Entered as second-class matter June 15, 1905, at the Post Office at New York, N. Y., under the Act of Congress of March 3, 1879. The Editor will be pleased to consider all contributions, but "American Homes and Gardens" will not hold itself responsible for manuscripts and photographs submitted

Photograph by Nathan R. Graves

With the passing of Summer-time the memory of such a beautiful garden as the one here pictured should inspire our interest in Fall planting

AMERICAN HOMES AND GARDENS

Volume IX — October, 1912 — Number 10

The Building of Brick

By Robert H. Van Court

WHY are not country and suburban homes more frequently built of brick? At first thought one might feel like replying that many of them are so built, but a moment's reflection and a mental survey of the suburbs, even the most beautiful, with which he may be familiar will convince him that in only a very few instances, comparatively, is the suburban or country home constructed of brick unless the house be much larger and more costly than the average.

If the vast majority of our suburban houses are of wood, it is very largely because wood is the cheapest material with which to build. Perhaps it would be more correct to say that the *initial* cost is much less than that of any other building material. This is an age that has encouraged shams—in the striving for the maximum effect at the minimum cost—of building for to-day rather than for to-morrow and of being satisfied with what is attractive and temporarily effective, rather than of striving for what is intrinsically good and will grow more beautiful and consequently more valuable with the passing of time. In order to obtain rooms of a given number and size and furnishings of a certain sort, so many home-builders have in times past been willing to substitute frame for brick as the material with which to build.

Then, too, brick is not more generally used because it is not quite thoroughly understood in America. The country

Brickwork improves in æsthetic aspect with age. The old house of brick invariably possesses a charm peculiar to itself

has been very quickly settled and built up—villages have rapidly grown into cities—and brick has been seized upon and used chiefly because it is the least expensive material, the use of which will comply with the municipal building laws. The result is that it has been so extensively used for constructing factories and other unsightly buildings, that the very mention of a brick house brings to mind some hideous structure with which one may be familiar. Still another reason is, that until very recently our architects have given very little attention to the study of brick buildings. Too often it has been regarded as a cheap substitute for stone and thus forced into a use for which it is not adapted, for we seem to have forgotten that brick has had a long and honorable history and possesses an entire school of traditions of its own. We may think of the beautifully mellow and time-stained brickwork of Italy, France and England, and sigh because such effects belong to other countries and bygone ages, forgetting that much of the grace and beauty of such building may be ours if we will but use the materials at hand with which to create it.

Many of us think that wood is the cheapest of building material, but, after all, is it? The initial cost is the least, but a frame building begins almost at once to demand repairs, and these repairs become more and more costly as the age of the house increases. It must be painted every year or two to keep it in presentable order, and any failure to make these repairs promptly results in a rapid depreciation in value. A frame house is difficult to heat and to heat it at all involves a heavy outlay for fuel, while in Summer it is much warmer than a house of brick and consequently much less comfortable. A frame building is of course highly inflammable and insurance companies have learned to their cost, that a frame house once on fire is almost invariably a complete wreck and therefore a loss, and their rates for insurance are naturally higher. In a few years the added cost of these items may amount to much more than the difference between what the house cost and what it would have cost had it been built of brick or even of stone.

Then, too, the frame house is subject to constant depreciation in value. A wooden house ten years' old generally looks its age, and if it were for sale would not bring anything like its cost. A brick house, on the contrary, becomes more beautiful with the passing years, and therefore increases in value. One can hardly find a frame house one hundred years old, but brick buildings one thousand years' old are numerous, and apparently as strong and serviceable as ever. It might be suggested that we are building our homes for ourselves, and not for our descendants of one hundred or one thousand years hence; but why not build the best for ourselves, particularly when the best costs only a very little more than something not so good?

Next to frame, the cheapest material of which to build is stucco in some one of its various forms. Stucco, of course, is not a new building material, but its adaptation to modern country and suburban building is quite recent. The use of stucco which just now finds wide acceptance requires that it be applied directly to tile or terra cotta blocks or else applied to wire lath or metal netting which is stretched upon a framework of wood. This method of building is so new that there has not yet been time to fully test its efficacy, but it may be said that so far the stucco has shown a tendency

Here we see a careful arrangement of material, combining artistically proportioned woodwork and brick construction

to "peel off." The tiling or wire lathing to which it is fixed expands or contracts, of course, with heat or cold, and this naturally causes cracks in the stucco which is necessarily rigid. The smallest crack will let in moisture which hastens the process of destruction. Walls thus built of stucco require constant repairing, and much patching which leaves unsightly blotches and differences of color. Some of our friends will tell us that stucco is one of the most ancient and durable of building materials, and will point to various stucco structures in Europe or South America which have attained a great age. If stucco has endured for years in these cases, it is because it has been applied to stone or brick, and even then it is sometimes known to require considerable repairing. No one seems to claim durability as one of the advantages of our use of stucco. Its chief points seem to be that it is fresh, cool looking, inexpensive and easily applied.

Stone is almost always the most beautiful and most decorative of building materials, but unfortunately it is nearly everywhere the most expensive both in its original cost and in its application. Only in certain places are there quarries of stone suitable for building purposes, and freight on a substance so weighty must be taken into consideration. Then the quarrying and the cutting which is almost always necessary is another exceedingly costly item and all this expense is incurred before the material has reached the scene of building operations or before the actual construction has been begun, and the cost of labor in building a house of stone is necessarily quite high. Wood is rapidly becoming less and less of a factor in home-building. The forests, which were once thought almost inexhaustible have disappeared before the ruthless campaign of the sawmill and its "lumber king," and forestration, which might afford a remedy, is too recent a science to be of any practical help. Then there are vast districts where no lumber could be produced, and the cost of importing lumber or bringing it from a distant part of the country would be excessive. So each year finds the proportion of frame houses smaller and smaller.

We now come to the subject of brick as a building material. It seems to answer every demand. Being made of clay, it can be and is produced in almost every part of the country. It has been subjected for days to a furious heat while being baked and is therefore fireproof, and its use keeps down the insurance rate. A brick house is not difficult to heat and the fuel bill will be one-third less than if the house be frame, and being cooler in Summer, it is more comfortable during the heated periods of our trying American Summers. But our homes are now being built for beauty as well as for comfort, and economy now has a meaning other than mere cheapness, for what is merely cheap and ugly, and uncomfortable because cheap, is really after all the most costly in many ways—all this by way of preamble to saying that brick is the most beautifying and satisfying building material within the average man's means.

Let us suppose that the prospective builder fully realizes that brick possesses so many advantages, material as well as artistic, that he is prepared to pay the added cost, charging the difference against the credit item created by the reduction in the cost of heating, insurance, painting, repair and general upkeep. He finds a vast array of styles awaiting his selection

Brickwork will often give to stucco houses just that note of distinction which cement surfaces often require to relieve their flatness

Much may be learned from a study of early examples of American brick houses. Here one sees the exquisite example of a doorway thoroughly well suited to the material of the facades. The brick house that is properly set in the midst of surrounding trees forms an attractive note in any landscape

—the variety is fascinating, for if we except Gothic, which is to a great extent a style adapted only for buildings of stone and which in any case is rarely if ever used for domestic architecture, there is no style of building which cannot be suitably interpreted in brick and for which precedent and tradition do not offer examples. The Italian style which just now is so deservedly popular is more frequently and perhaps more properly developed in brick than in anything else. The English and German domestic types find their most beautiful expression in cottages of brick, and the very words suggest pictures of time-worn, ivy-covered houses of half timber which are beautiful, not in spite of their age, but because of it, and usually these cottages are of brick of some of the many kinds which the old builders under-

stood so well and with which they wrought so lovingly.

Brick is particularly interesting as a building material because it possesses a certain "human" element. It seems to respond to almost any architectural humor, grave or gay, and is quite as pleasing and beautiful of plain dark red modestly trimmed with white stone at Independence Hall, as when of pale buff with diaper pattern subtly suggested by darker headers at Madison Square Garden. This "responsive" quality renders its application to domestic building particularly successful for brick, seems to sustain the note in which the home is set, whether it be the dignified beauty and reticence of English Tudor or Jacobean, or the more intimate cottage styles of Germany or France. It is particularly adapted for building homes in what we call the "Colonial" styles, for brick was used in all the American colonies where such expense could be met and excellent examples of such buildings are readily recalled, from the Hancock house in Boston, to the Dutch architecture of New York with its houses of brick "brought from Holland," then through Maryland and Virginia with their stately brick manor houses to the French and Spanish buildings of Louisiana.

An excellent type of the house of brick and stucco combined

The texture of the brick made to-day is of great variety, and even a greater variety of coloring is obtainable, ranging from the palest gray or buff through all the long range of colors into the deeper browns and greens which shade imperceptibly into black. Between these extremes there are the most beautiful shades of grays, tans and blues, and every color imaginable, and the variety in size and shape is very nearly as great as the variety in coloring and texture. Besides all this there are many different methods of using brick—an endless number of "bonds" adapted or borrowed from antiquity which produce effects of light and shade by projecting or recessing certain courses or even certain units of decoration to produce variety of effect. More beautiful than all these, however, are the wonderful results obtained by combining brick with mosaic, tiles, terra cotta, majolica or the other materials in which bas relief or modeled ornament is produced. The building of plaques or panels of ivory-tinted plaster or colored majolica into walls of rough-surfaced brick of a different color produces effects almost unbelievable.

But the advantages of brick as a material of which to construct the house, are not confined to its use in external work, for some of the most interesting and distinctive uses for brick are for interiors. Some particularly beautiful vestibules are being paved, lined and ceiled or vaulted with vari-colored brick, and an especially interesting example is found in New York, where the beauty of a wonderful facade of brick in mediaeval color effect is repeated and emphasized in the treatment of a large and deep vestibule or hall where the idea of inexpensive richness worked out in brick is developed in a most wonderful way. Brick in many forms is used for flooring terraces, verandas and pergolas, and it is often used for halls, libraries or dining-room, or in other rooms where a solid and dignified effect is desirable, but even more successful is its use for the facing and lining of fireplaces and even for building mantels. There are perhaps no more successful mantels being made than those which are constructed wholly of brick, especially made in suitable design, size and shape, and merely set in place by the workman. The corbels or brackets which support the shelf are of brick, and the shelf is frequently one very large thin brick. One might suppose that this would produce a very rough, crude effect much more suitable for a mountain camp or a bungalow in the woods, than for a suburban or country home, but just the opposite effect has been secured in sev-

(*Continued on page* 372)

No material offers a better contrast to vines and flowering plants than that of good brickwork, forming, as it does, just the proper background for the green of growing things

A garden of hardy Perennials and of Annuals, near Cornish, New Hampshire. This season's Fall planting should produce a garden as interesting as this one

Fall Planting for the Permanent Flower Garden

By Gardner Teall
Photographs by Jessie Tarbox Beals and Nathan R. Graves

HAPPILY the time is passed when the American home garden-maker simply looked upon the patch of ground at his disposal as being merely a bit of practice acreage in which, as fancy dictated, he might plant here and there a few seeds of flowers or of vegetables in haphazard confusion or skimpy orderliness, feeling that the whole matter was one of experiment, and that failure on the part of the seeds to produce what was expected of them, or even to come up at all, was not attended with any disappointments of serious consequence. That was the time when the man of the house attended to the buying of vegetable seeds, leaving to the housewife all things connected with the seeding of the flower garden. I do not know why it is that our grandfathers and our grandmothers should have looked upon all gardening as a pursuit to be divided between themselves; why the raising of vegetables should have been considered a manly occupation or recreation and the growing of flowers not, but that is as it seems to have been until comparatively a few years ago. Now, fortunately, the joys of gardening are shared alike by master and mistress, the children, the young and the old, and a statesman may wax enthusiastic over his garden of rare pinks or a milliner over her bed of asparagus without any one's criticizing the choice of either in garden planting.

Nowadays, we do not confine our efforts to Springtime visits to the grocery store for a package of Petunia seed, a parcel of Sweet Peas, or an envelope of Candytuft, content to sprinkle in over a little dirt in a bed that occupies a corner of the "yard," sighing the while that we cannot seem to raise the good old flowers to the state of perfection they reached in the old-time gardens of ante-bellum days, of Colonial memories; instead we are happy to have discovered the difference between those flowers which have to be planted every year—the Annuals—and those others—the Perennials—which will continue to come up season after season from the original stock when once the seeds take root, and we have come to plan for permanent gardens, that shall fill our hearts with the joyousness their beauty will lend throughout the season when Nature dons her loveliest raiment. We have come, too, to understand that just sticking a seed or two or a root into the ground anywhere is not all there is to gardening. Year after year our study of the A, B, C of home outdoor floriculture initiates us into the simple mysteries of garden craft, so that our gardens to-day are as lovely as those that ever gladdened the sight of the American home garden-makers of the early period.

Fall planting is an important part of the maintenance

of the home garden. There are not in the whole realm of the Goddess Flora flowers more exquisite than the hardy species that lend themselves so admirably to permanent planting—the Sweet Williams, Delphiniums, Foxgloves, Canterbury Bells, Pyrethrum, Montbretia, Iris, Hollyhocks, Anemones, Primroses, Saxifrage and the like. October should be a busy month in every garden, for this is an excellent time for dividing old roots, re-arranging the clumps of hardy Perennials where these need it, of filling gaps in hardy borders, and of setting out new hardy plants. Perhaps one of the commonest mistakes made by the garden beginner is to assume that a small garden requires small plants and that tall-growing and large flowering plants are out of place in any but a large garden. We have only to recall the wondrous beauty of the English cottage gardens that seem to be bursting with their glow of Hollyhocks, Larkspurs, Sunflowers and Chrysanthemums, to realize how lovely a tiny garden planted with striking flowers may be. To this article is appended a table showing, in a general way the height attained by various flowers suitable for Fall planting when these have reached their maturity. Not one of the plants in this list would be out of place in the small home garden if properly placed. Under "location" those that require full sunlight have that fact indicated by the word "sunny," and those that require less sunshine by the words "less sunny," though the garden beginner must never expect success with plants that hardly receive the sunlight at all.

Golden Glow (*Rudbeckia Laciniata*)

When planning for Fall planting one must take into consideration the fact that inasmuch as the hardy Perennials are to form a garden that will, in all probability, remain unaltered for some years (so far as its essentials are concerned), it will be seen how necessary it is that such gardens be prepared with the greatest care and thought of their future aspect. First of all thorough drainage must be assured after which manure must be worked into the earth to some depth, preferably three feet. A good way to prepare beds and borders for permanent Perennials is to dig a trench the size of the bed or border to the depth of three feet covering the floor of it with a five-inch layer of rubble to assist drainage, and a couple of inches of coarse ashes above this, filling up the trench with the bedding composed of loam, manure and sand. This will make an admirable soil for setting out the hardy plants. Of course the earth of newly-prepared beds and borders will settle somewhat and will have to be evened off later by filling. Where it is not possible to give to the

Clumps of the lovely Bellflower (*Campanula persicifolia*) combine well with lawn shrubbery

beds and borders such thorough preparation one must still be sure that the soil in which the plants are set is not poor or sour and fertilizer should be worked in where needed, although it must be remembered that the soil should not be over rich.

Seedlings grown from July sowing should be set out without delay in order that they may become established in their new environment before the setting in of Winter. In this connection let the home garden-maker, remember that although Fall planting is now generally recommended, it is wiser in those localities where the Winters are long and severe, to defer planting until Springtime as it often happens that the season of snow and ice sets in too early in such places for the newly-planted Perennials to get their start ahead of the severity of the climate. There is an advantage in Fall planting that should always be taken into account. October does not find one as rushed as does the month of May for in the Spring the home garden-maker (who usually has only a limited amount of time to devote to planting and garden cultivation) finds the planning of the seeded beds quite enough to take up all of his leisure moments.

Centaurea

When working in an established hardy garden, for the purpose of removing and dividing the roots of old plants, one must take care not to damage any clumps of Bulbs which might remain hidden in the soil. As one garden lover put it: "Roots are to be fished out, not to be speared!" In digging up a clump of herbaceous roots, for resetting or for division, all dead shoots clinging thereto should be cut away. It is needless to say that all roots should be handled tenderly. The garden beginner will come to learn that there is no general rule that can be taught him for properly separating old root clump into numerous parts, which, when set out, themselves multiply in rootlets and themselves become sturdy clumps in the course of a few seasons again to be divided and reset. The garden-maker must use his judgment and learn by experience and the intuition that will probably come to his aid just how he may cut or break up an established clump of roots into a number of settings for fresh culture. This process of root division refreshes the stock of any hardy garden. If the old plants were not lifted season after season, they would eventually form root-masses that would overcrowd the beds and borders. Moreover such plants as the Iris would form a hard root-mass which would give out a circle of leaves and flower-stems leaving the center bare, thus forming unsightly patches of bare earth in the gardens.

Fortunately for the garden-maker, Perennials present species adapted both for very sunny, half-sunny and shaded locations, thus offering a wide range of planting material both in low-growing Perennials and in those of taller growth. Again there are Perennials that thrive in rich soil, those that are best adapted to clayey soil and still others that do very well in sandy soil.

Among the hardy Perennials that require less sunlight

Perennial Phlox

Valerian

than the class in general are the following interesting species: Monkshoods, Aremones, Primroses, Violets, Saxafrage, Funkia, Bleeding-heart, Lily-of-the-Valley, Day Lilies, Hepatica, Vinca and others that will be found in the table appended to this article.

Of the Perennials of low growth are to be mentioned Arabis, Aubrietia, Hepatica, Bellis Perennis and Myosotis, in connection with which it is worth noting that the earliest Perennials do not, as a rule, attain as great a height as those which bloom after June. None of the species just mentioned attain a height of more than six or eight inches. In arranging a border or a bed of hardy herbacious plants the table appended should prove useful inasmuch as the garden-maker can there see at a glance the various heights to which the Perennials listed attain and place, can, therefore, place them in the garden with reference to the taller species forming a background for those of lower growth.

Helianthus

When arranging the permanent garden succession of bloom must also be taken into consideration. In those states where Spring brings forth growing things at an early date one may look for Adonis, Columbine, Arabis, Hepatica and Trillium to blossom; in May for other varieties of Aquilegia, for Anemones, Bellis Perennis, Iris, Primrose, Campanula, etc.; in June for Iris, Lychnis, Poppies, Scabioso, Spiræa Trollius, Veronica, etc.; in July for Achillea, Centaurea, Funkia, Heliopsis, Stokesia, Veronica Virginica, etc.; in August for Asclepias, Boltonia, Helianthus, Rudbeckia, etc.; in September, for Aconitum, Aster Amellus, Chrysanthemum, Lobelia, Phlox Paniculata, Veronica Longifolia, Seduin, etc., and in October Aconitum *Autumnale,* Aremone Japonica, Chrysanthemum, etc., all these species flowering somewhat according to the climatic conditions in the matter of time.

Another matter for thought in planning the permanent garden is that of color. One would not care to have monotony in this respect, therefore it is always well to plan carefully the color-scheme of the garden-to-be as it will appear from month to month, always striving to have each month's array of flowers present sufficient variety in the matter of color contrast, as this color contrast is a matter which is of great importance in the planning of a fine garden. Man has spent so much of his time in specializing, of segregating floral types, varieties and colors that the garden beginner can easily go astray if he selects his plants with reference to species only. Indeed the modern garden maker must be something of an artist. It is not enough that things planted come up, grow, thrive and endure that a garden will be evolved; in the true sense of the word a garden must be a spot where growing things give one a sense of enjoyment. All the flowers in the world wrongly placed hardly would do that, even though, in their entirity, they suggested pleasurable individual types. No, the true garden-maker must be an arranger of flowers as well as a putter-in-the-earth of plants, for he must select from Flora's palette such flowers as represent the wealth of color Nature has placed within range of his skilful hand.

Delphinium

Pinks (Dianthus)

TABLE OF HARDY PERENNIALS FOR FALL PLANTING

NAME	COLOR	SEASON	LOCATION	HEIGHT
Aconitum (Monkshood)	Blue	June	Less Sunny	3-4 ft.
Aquilegia (Columbine)	Various	May-July	Sunny	12-24 in.
Alkanet (see Anchusa)	Blue	Through Summer	Less Sunny	4-6 ft.
Anchusa (Alkanet)	Blue	Through Summer	Less Sunny	4-6 ft.
Anemone	White to Deep Pink	August-October	Less Sunny	1-3 ft.
Bellflower (Platycodon)	Blue	July-August	Sunny	1-2 ft.
Blazing Star (see Liatris)	Purple	June-July	Sunny	2-3 ft.
Bleeding-Heart (see Dicentra)	Pink and White	May	Less Sunny	2 ft.
California Tree Poppy (see Romneya)	White	July	Sunny	3-6 ft.
Campanula (Canterbury Bells)	White-Blue-Pink	June-July	Sunny	1½-3 ft.
Canterbury Bells (see Campanula)	White-Blue-Pink	June-July	Sunny	1½-3 ft.
Cardinal Flower (Lobelia)	Scarlet	August-September	Less Sunny	1½-2 ft.
Centaurea	White-Blue-Yellow	Through Summer	Sunny	2 ft.
Chrysanthemum	Various	September-November	Sunny	1-3 ft.
Columbine (see Aquilegia)	Various	May-July	Sunny	1-2 ft.
Convallaria (Lily-of-the-Valley)	White	May	Less Sunny	6-10 in.
Day Lily (see Hemerocallis)	Yellow to Orange	September	Less Sunny	3 ft.
Delphinium (Larkspur)	White-Blue-Pink	Through Summer	Sunny	2-5 ft.
Dianthus (Sweet William)	White to Red & Purple	Through Summer	Sunny	1½ ft.
Dicentra (Bleeding-Heart)	Pink and White	May	Less Sunny	2 ft.
Dictamus (Gas Plant)	White	May-July	Sunny	2-3 ft.
English Daisy	White-Pink	June-July	Sunny	4 in.
Foxglove	Pink-White	June-July	Sunny	3-5 ft.
Funkia	White	July-August	Less Sunny	½-2 ft.
Gas Plant (see Dictamnus)	White	May-July	Sunny	2-3 ft.
Golden Glow (see Rudbeckia)	Yellow	July-August	Sunny	3-6 ft.
Helianthus (Sunflower)	Yellow	July-September	Sunny	2-10 ft.
Hemerocallis (Day Lily)	Yellow to Orange	September	Less Sunny	3 ft.
Hepatica	Lilac to Blue	May	Less Sunny	4-6 in.
Hibiscus (Marsh Mallow)	Rose-White	July-August	Sunny	4-6 ft.
Iris	White-Yellow-Blue	May-July	Sunny	1½-2½ ft.
Larkspur (see Delphinium)	White-Blue-Pink	Through Summer	Sunny	2-5 ft.
Liatris (Blazing Star)	Purple	June-July	Sunny	2-3 ft.
Lily-of-the-Valley (see Convallaria)	White	May	Less Sunny	6-10 in.
Loosestrife (see Lysimachia)	White-Yellow	July	Sunny	1½-2 ft.
Lupin	White-Blue-Pink	June	Sunny	1-2 ft.
Lychnis	White to Red	June-August	Sunny	1-3 ft.
Lysimachia (Loosestrife)	White-Yellow	July	Sunny	1½-2 ft.
March Mallow (Hibiscus)	Rose-White	July-August	Sunny	4-6 ft.
Monkshood (see Aconitum)	Blue	June	Less Sunny	3-4 ft.
Pansy	Various	May-October	Sunny	6 in.
Phlox, Perennial	Various	July-September	Sunny	1-5 ft.
Platycodon (Bellflower)	Blue	July-August	Sunny	1-2 ft.
Poppy, Perennial	Various	June	Sunny	2 ft.
Primrose (Primula)	Primrose-Yellow	May	Less Sunny	6 in.
Primula (see Primrose)	Primrose-Yellow	May	Less Sunny	6 in.
Ranunculus	White	May	Less Sunny	6 in. to 3 ft.
Romneya	White	July	Sunny	4-6 ft.
Rudbeckia (Golden Glow)	Yellow	July-August	Sunny	3-6 ft.
Saxifrage	White-Yellow-Pink	May-June	Less Sunny	8 in.
Spirea	White-Rose	May	Less Sunny	3-5 ft.
Stokesia	Blue	July-August	Sunny	1½-2 ft.
Sunflower	Yellow	July-September	Sunny	2-10 ft.
Sweet William (see Dianthus)	White to Red & Purple	Through Summer	Sunny	1-1½ ft.
Trillium	White-Pink	May	Less Sunny	8-10 in.
Trollius	Yellow to Orange	May-August	Less Sunny	2-3 ft.
Tritoma	Yellow-Orange-Red	Late	Sunny	2-3 ft.
Valerian	Pink-Rose	July-October	Sunny	1-2 ft.
Veronica	Blue-Purple	July-August	Sunny	1-1½ ft.
Vinca	Blue	May	Less Sunny	Creeping
Violet	Violet-White	May	Less Sunny	4-6 in.

Funkia

Sweet William

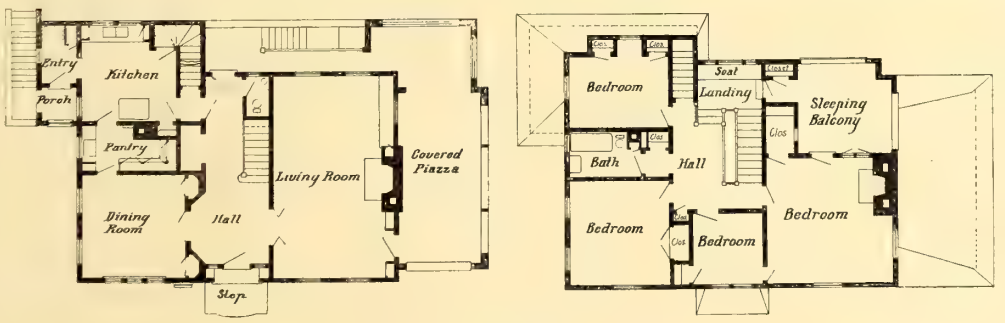
Road front of a house at Reading, Massachusetts, which has been cleverly planned to fit its sloping site

A House at Reading, Massachusetts

By Mary H. Northend
Photographs by the Author

CROWNING the crest of slightly rising ground at Reading, Massachusetts, in the midst of grassland surroundings, plentifully interspersed with slender birch trees, stands the home of Mr. H. H. Boardman. The house, designed by Messrs. Adden & Parker, architects, of Boston, is admirably located with a view to showing its exterior to the best possible advantage. In type the dwelling is a modification of the Dutch-Colonial model, and it depends for distinctiveness upon its own individuality. It is built along broad, roomy lines, with deep overhanging roof accentuating its length and width, and its several features add interest to its rather plain foundation. Dormer insertions here and there, equipped with small-paned casement windows, relieve the broad sweep of the deep-pitched roof, and additions at either side of the main body of the dwelling in the form of porches, lend character, and at the same time serve special purposes. The porch on the right is screened in during the Summer months and fitted up as an open air living-room, while the one on the left affords access to the service department. Other exterior features are the long, wide, uncovered veranda at the rear, and the outdoor sleeping porch, opening from an interior chamber.

The house is built upon a fieldstone foundation, with frame superstructure covered with shingles, and in coloring is cream for the body with dark brown for the trim. In shape, it is nearly square at the front, with porch projections as mentioned, while at the rear it is somewhat irregular in contour, though wholly harmonious. The window arrangement is particularly good. No set form of insertion has been followed, though due regard has been paid to balance, and in consequence the windows assume character, and lend distinction by their independence.



First and second floor plans

The road front

The garden side

Plenty of light and air were primary considerations in the planning of this dwelling, and the results sought have been attained through this very feature of excellent window placing.

The approach from the main road is along a graveled path, flanked on either side by broad strips of close-cropped lawn. The main entrance is dignified by a recessed porch, shaded by a slanting hood, above which is a shelf effect, burdened in the Summer season with a box of gay colored blossoms. From within the porch, a broad door, with quaint small-paned window flankings, opens upon the hallway, which extends the entire width of the house, opening at the rear on to the back veranda. In character, this apartment is strongly suggestive of Colonial influence. A simple stairway, with mahogany outline rail, rises at one side, the landing lighted by a broad window, beneath which extends a built-in seat, and the equipment includes some few fine mahogany pieces. To the left and right open the main apartments, and near the rear a door connects with the kitchen. The color scheme is grey and white with a bit of soft pink in the wreath design of the wall hangings, affording a restful and attractive finish.

Rear view, showing enclosed porches

Double French doors lead from the hall to the living-room, and the same arrangement connects with the dining-room. The living-room is especially attractive in its arrangement. Its ample dimensions allow of development along comfortable lines without any hint of crowd-

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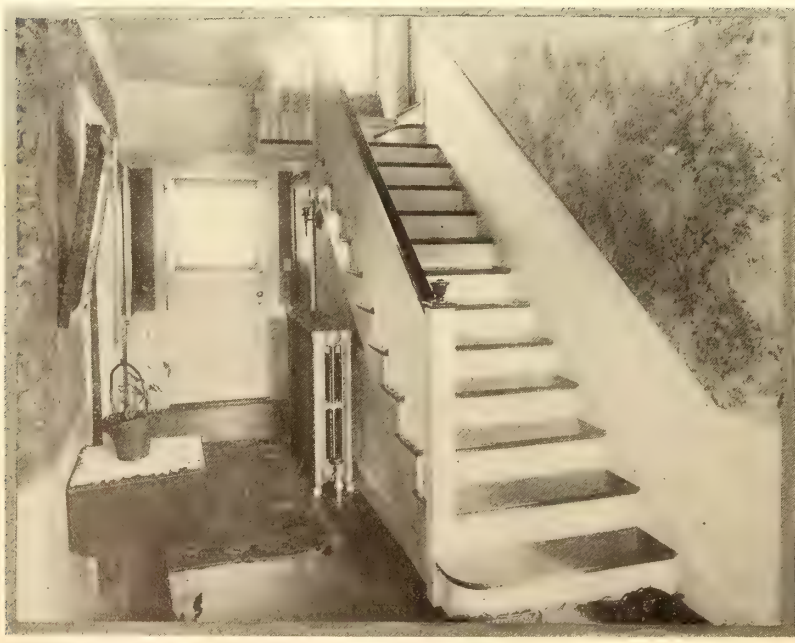

The entrance hallway

The dining-room

The lawn front of "Mount Pleasant," one of Philadelphia's most noted Colonial manor-houses

"Mount Pleasant" on the Schuylkill

A Famous Old Philadelphia Home Now Preserved Within the Precincts of Fairmount Park

By Harold Donaldson Eberlein
Photographs by T. C. Turner

"MOUNT PLEASANT" is fitly so named. Surely no pleasanter place for habitation could be found than the spot where this stately Eighteenth Century house rears its balustraded roof above a sea of surrounding greenery. On the crest of an eminence at a bend of the river, the site commands a broad view upstream and down and over the wooded slopes of the farther shore. Though in Summer the density of the foliage somewhat obscures the prospect, at other seasons, when the trees are less fully clad, the eye sweeps the valley for miles. Then it is, as once noble country-seats are seen crowning every hill, that one feels how ample and almost princely must have been the manner of life that prevailed there in the long-past days when the city was still far distant from these sylvan fastnesses. Society was gayer, more polished and wealthier hereabouts than in most other parts of the Colonies, and the affluence and culture of persons of substance and quality were reflected by the houses in which they chose to spend their Summers or where, sometimes, they lived the year round. The high, rolling lands on both banks of the Schuylkill invited the establishment of plantations by the foremost citizens, the unsurpassed loveliness of the scene was an ever-present joy, while the waters of the stream supplied an agreeable element of life and, at the same time, yielded an abundance of the best of fish to grace the boards of gentry notoriously addicted to the pleasures of the table.

The entrance facade is one of the finest early architectural examples in America

In one of the choicest spots of this fair paradise of peace and plenty, Captain John Macpherson bought land in September, 1761, and set to building a great house of almost baronial aspect that commands consideration by its architectural presence alone, quite apart from the rich historic glamour that hangs over it. From the west or river front of the house the land falls away rapidly so that the approach by the driveway leads to the east front. East and west fronts are alike of imposing mien. A high foundation of carefully squared stones is pierced by iron-barred basement windows set in stone frames. Above this massive grisly base the thick walls of stone are coated with yellow-gray rough cast. Heavy quoins of brick at the corners and, at the north and south ends of the building, great quadruple brick chimneys, joined into one by arches at the top, give the structure an air of more than usual solidity. A broad flight of stone steps, whose iron balustrades are overgrown with a bushy mass of honeysuckle, leads up to a doorway of generous breadth. The pillars at each side of the door and the

End view of "Mount Pleasant"

super-imposed pediment, the ornate Palladian window immediately above on the second floor and, above that again, the corniced pediment springing from the eaves, all contribute to set a stamp of courtly distinction upon the pile, a distinction for which only Georgian architecture has found utterance. Above the second floor the hipped roof springs pierced, east and west, by two graceful dormers and crowned by a well-turned balustrade that traverses nearly the whole distance between the chimneys. The fan light over the door has remarkably heavy fluted mullions, and all the detail throughout the house, though highly wrought, is heavy, as it was wont to be at the precise period when "Mount Pleasant" was erected.

If one were asked, however, to say what it is before all else that gives a peculiarly striking appearance to "Mount Pleasant," the answer would straightway indicate the two flanking outbuildings set thirty or forty feet distant from the northeast and southeast corners of the house. Though designed for servants' quarters and various domestic offices, these two-story hipped-roof buildings are made of the same material and finished with the same care as the rest of the house. Without them "Mount Pleasant" would be only an unusually handsome Georgian country house; with them it at once takes on the manorial port of one of the old Virginia mansions. Beyond the drive-girt circle before the house shaded by a mighty spreading sycamore, and at some distance from either side of the road, are two barns. The grouping is impressive and eloquent of the state maintained by the Colonial occupants of this truly noble seat.

The history of "Mount Pleasant" is not less engaging than its aspect. Captain Macpherson is one of the most picturesque personages to be met with in the picturesque pages of Colonial history. Sprung from the Macphersons of Clunie in Scotland, he left his native country and followed the sea, coming out to America at what time is not exactly known. He first came into prominent notice in Philadelphia, however, in 1757, when he took command of the privateer "Britannia." After many vicissitudes of fortune and numerous engagements with the French, from whom he made not a few brilliant and profitable captures, he succeeded in amassing a goodly fortune and then came back to rest from his seafaring, a rich man for those days.

With a part of the spoils of his privateering he built "Clunie," as he at first named his estate after the seat of his clan. The name "Clunie" he subsequently changed, however, to "Mount Pleasant," the title it still bears. Here he lived in a manner becoming a man of his substance, exercising an hospitality that won the commendation of John Adams, who never failed to chronicle the good things he there had to eat and drink. A man of intense activity, Macpherson busied himself by inventing various contrivances, one of which was a device for moving brick or stone houses bodily—a piece of mechanism that worked successfully. Another fruit of his ingenuity was an "elegant cot which bids defiance to everything but Omnipotence." The occupant, according to the Captain's assertion, was warranted immunity from flies, mosquitoes or any other entomoligical irritant. In his later years he gave lectures on astronomy, published papers on moral philosophy, and issued the first Philadelphia city directory (1785), wherein he took occasion to express his personal pique at those that proved uncommunicative to his canvassing queries. He has, for instance, under the "C's" a whole regiment of "Cross women" with the numbers of their houses. A truly novel way of getting revenge!

Wearying of the seclusion of "Mount Pleasant," and longing again for the smell of the sea, at the outbreak of the Revolution this gallant, but eccentric gentleman, applied to the Marine Committee of the Continental Congress for the chief command of the navy, a post for which his past achievements bespoke favorable consideration. Despite his importunities to gain his point, however, the honor was given to another. After Macpherson left "Mount Pleasant" he leased it to Don Juan de Merailles, the Spanish Ambassador, and finally, in the Spring of 1779, sold it to General Benedict Arnold, who lived there much of the time for more than a year after his marriage to Peggy Shippen. It was at "Mount Pleasant" that he and his bride gave some of those entertainments that increased the cavilling and carping of his enemies and creditors, when his personal fortunes were sinking into hopeless embarrassment.

After Arnold's attainder and the confiscation of his property, "Mount Pleasant" was leased to Baron Steuben, but it is doubtful whether he ever lived there, as his duties took

The hallway of "Mount Pleasant"

The drawing-room

The upper hall

him to the South at that very time, and when he returned thence the estate had another tenant. Passing through several hands, the property eventually came to General Jonathan Williams, of Boston, the Revolutionary worthy, who remained there, and his family after him, till the middle of the nineteenth century, shortly after which period "Mount Pleasant" and all the surrounding estates were acquired by the city and made a part of Fairmount Park.

Knowing thus a little of its history, the interior of the house, where personal memories seem to cling more persistently, can be better appreciated. From the moment you cross the threshold, fancy, peoples the rooms with a shadowy throng of those that once dwelt there or came beneath the hospitable roof, when some festive occasion drew them from the city or the neighboring seats. There stands the old Captain in a cocked hat, his armless sleeve hanging limp at his side; here a courtly personage in satin breeches, velvet coat and powdered periwig treads a measure with a dame arrayed in flowered brocade who nods the plumes of her turban coquettishly at her partner in the minuet; there goes the gallant Spanish Don in resplendent uniform, and close behind him follows a martial figure in whose sour comeliness can be recognized the betrayor of his country's trust. All these and many more, not forgetting the ebony-faced and liveried lackeys, discover their presence to our fleeting

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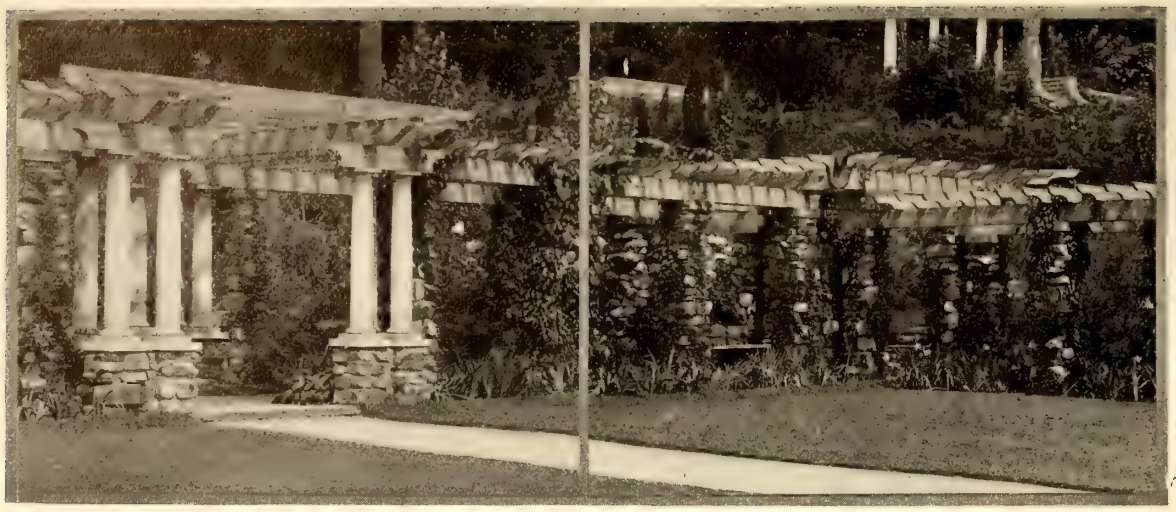
This side of "Mount Pleasant" commands a view of the Schuylkill River



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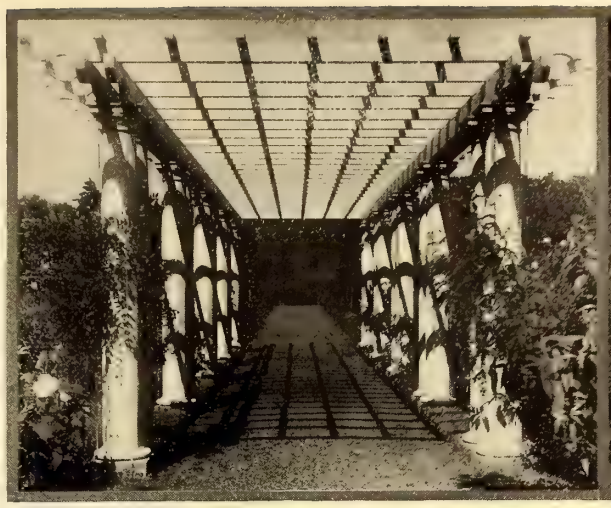

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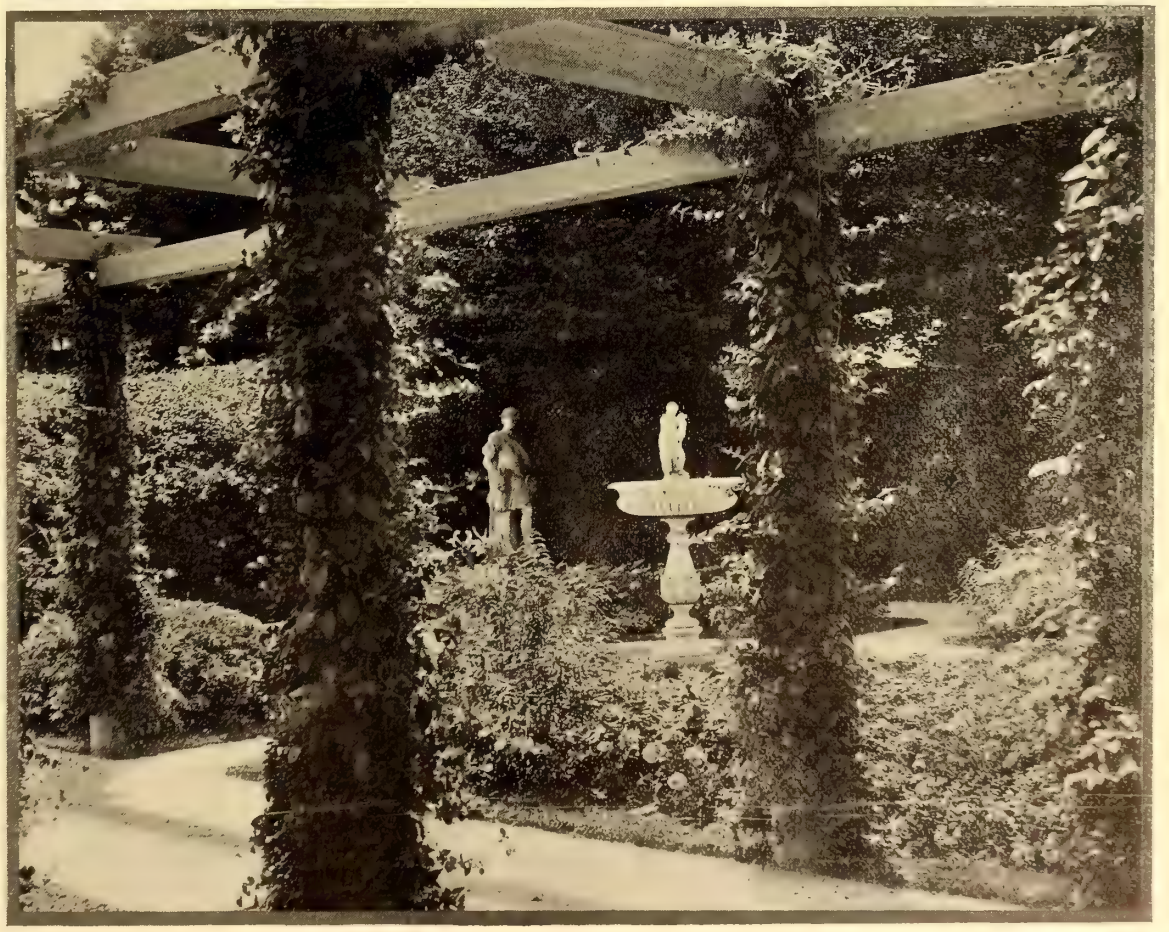


SOME PERGOLAS OF PLEASING DESIGN AND PROPORTIONS

The garden front of the attractive house on a hillside near Pasedena, California

A Hillside Home in California

By Margaret Craig

AS the strength of the fruit goes to make its seed, seems it that the gifted climate and unjaded soil of California favor Pasadena in the development of her garden qualities. From this it is but a step to provoke the wealth of design that casts into the mold of grace those details subordinate to unity that make possible houses worthy of their favorable surroundings, one such as is the home of Miss Florence Dwight, built in a most delightful situation, on a five-acre portion of the picturesque San Rafael Heights. In trying to designate the type of this house, where all of its characteristics divulge neither the Mexican turn nor that of the bungalow completely, the result leads to any conclusion almost that you please, and likely of the favorable sort, for whether capable of definition or not it is a fact of architectural loveliness, bearing on the finished product the stamp of a large originality.

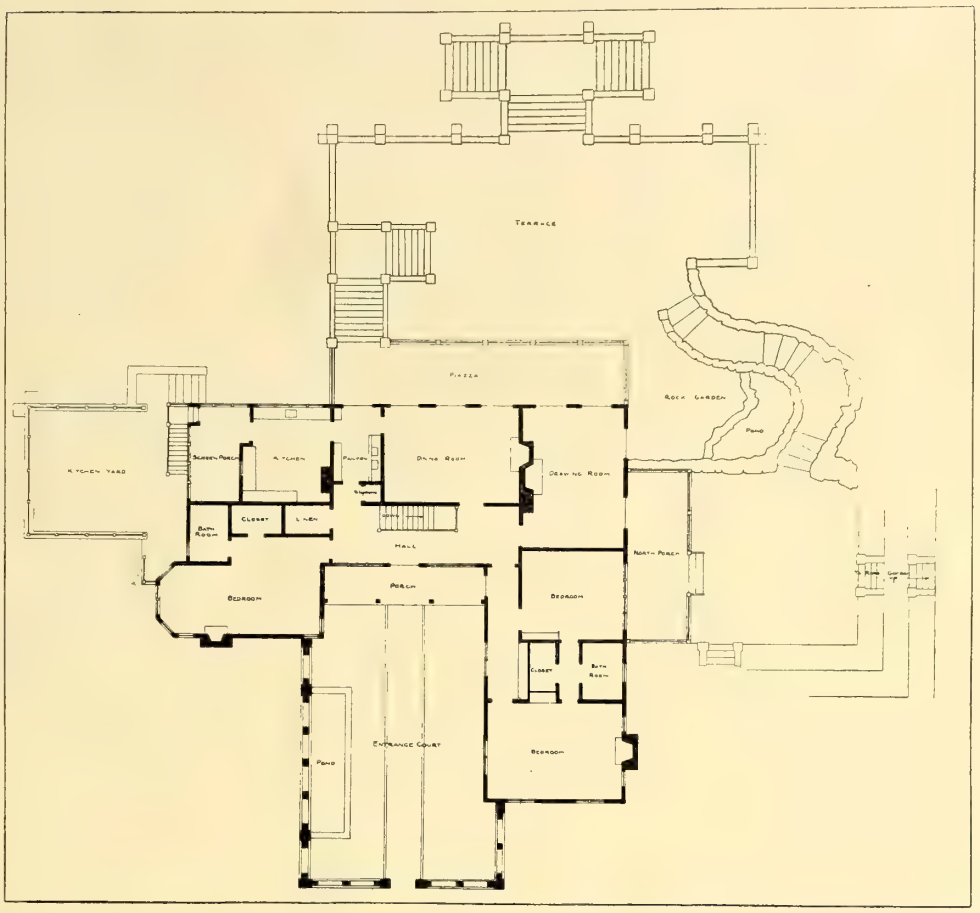
There are few towns in this country equal in dimensions to Pasadena, that can share with her in the distinction of being highly contributory to types of houses which are sought as instances of the best for the expenditure in architectural practice or so full of ideas adapted to rare garden landscape results. Pasadena has been made popular by views of her large and small holdings that dot many illustrated pages of magazines and books, as freely indeed as the originals themselves have been reproduced on the actual soil of her State and far outlying districts. AMERICAN HOMES AND GARDENS itself has been productive in this direction since numerous examples of Pasadena's dwellings and grounds have been described and illustrated in its pages from time to time.

The interesting house here shown is built on grounds that have just a sufficient clearance to give variety, without running into an overprofusion of features. Although the lot allowed the choice of valley or elevation for the foundation of the house, the owner decided upon the hillside construction which would give greater individuality. In this the architect, Louis Du P. Millar, of Pasadena, in his exterior work has been careful, in not to scatter the effect, nor has he failed to emphasize those fine features that give assurance of comfort and of taste that should be realized in interior designs. Although the area between the entrance of the house and the country road is covered with grapevines and is broken by the long straight path leading from the gallery to the front door, and by the carriage drive on either side of the open space, one has a moment hardly since entering the charming garden precincts to note any of its particular motifs, so uncritical does one feel, or so restful in the contemplation of general results. But eventually the garden details become crisp to the view and then we see built among them in an effective style, a house of white plaster with furnishings of dark stained wood; and with its low-hanging eaves and

Steps leading to the entrance-walk

simple white chimneys somewhat carrying out in inclusive effect the idea of the old Mexican homes.

The plan of the grounds as furnished on this page, shows an artistic latitude of accommodation between the rectangular and the curve. The uniform tendency to maintain the former design, which is shown in the entrance-court, kitchen yard, stairways and their platforms, and terraces, would point to a grounds' designer betrothed to a single idea, if he had not deliberately chosen to introduce the curve just mentioned, which skirts the rock-garden and joins the main terrace and the space to the right of the north porch, and which makes the uneven loom of the rock-garden, the dip of the path, the semi-serpentine bend in the pond and in the walk, just the shift to variety that was needed to show that the garden's lap which receives and holds the variegated shower of horticulture, must have the essentials of form as well as of color.



Plan of the ground floor and of the terrace

Shaded by graceful olive trees the entrance-way to the house is most attractive with its little conventional court containing the oblong pond, or rather, the formal-pool, and the doorway patterned after the Santa Barbara Mission. The porch which is just a few inches from the ground, is made of red brick, and a white seat with the severe lines of a bench is on either side of the heavy front door. The presence of the closely-trimmed box trees, adds to the decorative effect here and in various parts of the ground.

The hallway which one enters from this door, runs at right angles to it, and in following it directly to the right, one comes to a bedroom facing the north porch, and farther on a larger one frontward upon the entrance-court. The drawing-room and the pantry are placed across the hall and all these face the extensive terrace piazza. To complete this side of the house are, the screen-porch and the kitchen. To the front once more, we find another bedroom where one of the windows gives upon the left side of the entrance-court. Two bathrooms, linen and other closets, complete the list of the walled-space features of this floor. The arrangement of the interior rooms not only guarantees comfort, but

View of the hillside house from this upper story entrance

The quiet Spring pool in the garden is set against a mass of foliage and Roses

permits the uncongested placing of those decorations and furnishings which creates a pervading charm. By one means or another, either apart from consistency or in accord with it, bric-a-brac, hangings, pictures, objects de luxe and movable pieces are fittingly disposed by the hand of one who evidently leans to both sides in the discussion of whether "symmetry is a sign of decadence in art." That hand knew the value of the old family portrait and hung it over the fireplace in the dining-room matching it vertical in line with the opening beneath, then set her ornaments over the beautiful tile front in a pleasing, broken adjustment; when as a sort of compensation balance to this, she posed a framed picture over another exquisite mantel, but this time between urns and vases that are placed in studied relationship and to the praise of the living-room. In the illustrated bedroom may be seen long and imposing curtains intended as an offset to the massiveness of the high bedstead which stands in all the dignity of heavy carving as though grazing a ceiling at Versailles, while proving its right to be here.

The dining-room

An all-round view of the horizon beyond this five-acre piece shows the sure and persistent work that has been accomplished in those serious and superior productions that make for ordered beauty and repose in a suburb richly garnished with portrait bits reflecting cultivated Pasadena; while neighborhood points of conspicuous charm are seen in the superb Annandale Golf Links that border our garden, and the attractive "Hill Farm" which broadly adjoins it. A photograph shows a straight path and steps leading to a columned structure stretching as clean and neat as if out of an English enclosure. Another, shows a pool lying alongside of a wide-arched wall covered with plants and vines, that would look inviting in any locality.

The exterior of the house with its exceedingly graceful roof lines immediately suggests the buildings of Italy. The broad wall surfaces carry the idea a step further and of course the semi-tropical vegetation of California and the vineyards which surround the house do much to create the Italian atmosphere. A home built upon a hillside presents many problems and here they have been handled in so successful a manner that the result may prove helpful in the solving of similar problems.

The living-room

A bed-chamber

Of all Spring-flowering Bulbs none is lovelier than the fragrant single white, pink or blue Hyacinth

Bulbs for Fall Planting

By Ida D. Bennett
Photographs by Nathan R. Graves

THERE is hardly a class of plants which appeals to all classes of people so generally as does that of Spring flowering bulbs—those which go into the ground in October, and bloom with the first warm days of Spring. Bulbs are adaptable to so many places and conditions of soil and exposure, so tractable in their requirements, even being, in many cases, quite content to spend a portion of their lives in paper bags, if it happens that the particular bit of ground in which they have bloomed is needed for something else later on—the bedding of Cannas and Caladiums, the growing of annuals and like operations, and they have, in consequence to be taken up for storage.

Tulips are especially accommodating in this respect, and so universally popular and satisfactory is this particular family of Bulbs that it seems the subject natural to beginning any article on Bulb planting. Almost any location will serve the Tulip so long as it is well drained, but water about the Bulbs is fatal. They may even be grown under semi-shade as at the time of their blooming the leaves are not yet in evidence and the plants will receive sufficient sunshine, for it must be borne in mind that the sunshine upon the bloom is responsible for much of the brilliancy of the flower. After the period of bloom is past Tulip Bulbs may be lifted and heeled in some sunny position to ripen and then stored in tightly-closed paper bags for the Summer and planted out again when the season comes around. But it is also certain that the greatest satisfaction comes from growing the Tulips in permanent beds where they can remain undisturbed for several years. It may not be generally known in this connection, that the Tulip seeds freely, and when this seed is allowed to ripen it will scatter and come up in various places about the grounds in later seasons, producing in two or three years, strong clumps of plants which will give a fine show of bloom. Such Tulip seedlings are apt to depart quite notably from the parent type in blossoming, the petals tending to revert to the original type of the wild flower which produced pointed, rather than rounded petals. The color, too, varies and many stripped and blotched forms result. I have had some very good Bizarres and Biblooms result in this way.

The use of manure applied in the Fall is of doubtful expedience in the planting of Fall Bulbs, but as a rich soil is a requisite of fine blooms it must be supplied in some form. I find land which has been heavily manured in the Spring and used for annuals or other plants is usually about right for Tulips and other Bulbs, in fact about the same conditions which make for successful potato culture works out

A Narcissus border

well for Tulips. For permanent planting I think their use as a border—three deep, for beds of hardy Perennials gives most satisfactory results as they require the minimum of care and yield the maximum results and brighten up the beds at a time when the Perennials are just getting ready to show what they can do. The Bulbs should be set about six inches apart each way and about once and a half their depth below the top of the soil—that is there should be that depth of soil *above the top of the Bulb*. This is an excellent rule to follow in the planting of any Bulbs about which there is doubt. In planting in solid beds where uniformity of planting is essential, it will be found a good plan to remove a couple of inches of the top soil, will enrich the bottom soil with *old* manure or bone meal well worked in, cover this with an inch of sharp sand and mark off on this either circles or straight lines—the last is more practical and the resulting planting will be in circle and place a Tulip at the intersection of each cross lines. Cover these with an inch of soil and then, before finishing the covering, while yet the tips of the Bulbs are visible, fill in the intervening spaces with Crocus or Scillas. These will bloom a couple of weeks before the Tulips and make a lovely bed, or alternate the white Crocus and blue Scillas and see how charming they are.

In selecting Tulips for solid bed, careful attention should be given to harmonious arrangement of color, to the height of the flowers and the season of bloom. Most catalogues now give the season of bloom, height, and indicate such varieties as are especially suited for bedding. It goes without saying that yellow and red is not a happy combination, though it seems to appeal to some people, but white may always be combined with any of the other colors and adds brilliancy to the display. The following list of desirable varieties which bloom at the same time and are of uniform height will be of assistance to many: *White*: Duc Von Thol, L'Immacule, L'Reine; *Yellow*: Mon Tresor; *Scarlet*: Vermilion Brilliant, and Duc Von Thol. The white and the red Duc Von Thol varieties reach a height of eight inches and should be used for edging the beds of the other varieties named above as they are ten-inch plants.

For the garden of ample proportions late flowering Tulips may be planted amid early flowering Perennials, which will provide an admirable succession of bloom

The following are medium early Tulips recommended: *White*: Joost Van Vondel, White Hawk, Pottebakker, Cottage Maid (suffused pink); and Princess Marianne (shaded rose); blush pink and white: Queen of the Netherlands. *Pink*: Pink Beauty, Rose Grisdelin, and Pink Beauty; *Rose*: Proserpine, and Rose Luisante. *Scarlet*: Sir Thomas Lipton, Belle Alliance, Pottebakker Scarlet, Cramoise Brilliant, Crimson King, Prince of Austria (orange tinge); and Duchesse de Parma (bordered orange). *Red*: Pottebakker Scarlet. *Yellow*: Golden Queen, Chrysolora, Pottebakker Yellow, and Yellow Prince. These reach from ten to twelve inches in height except the Rose Grisdelin, which is eight inches in height. This last is fine for borders.

Following these in season there are a few such late blooming Tulips as the Couleur Cardinal (Cardinal) reaching a height of ten inches, and Prince of Austria and Thomas More, both orange-scarlet twelve-inch plants. Then there are the various Bybloomers—Bizarres, Gesnerianas, and tall-growing Tulips. These do best, I think, in clumps and among shrubbery where there is some foundation to cover a somewhat lanky growth. The low-growing Deutzia Gracilis, Anthony Waterer Spiræa and the like, are good foregrounds for these sorts or they may be

appropriately grown among the smaller attractive Azaleas.

The list of double Tulips is much more restricted, but the quality of such varieties leaves little to be desired in such Bulbs as the Salvator Rosa, Duke of York and the like. Many of these double flowers are delightfully fragrant and the list here given may be useful in making a choice. *White*: Rose Blanche, and La Candeur (pure white); *Pink*: Murillo; *Red*: Titian (bordered yellow); *Rose*: Tournesoil (scarlet-edged yellow), Salvator Rosa, Duke of York, and Lord Beaconsfield; *Yellow*: Yellow Rose and Tournesoil Yellow; *Bronze Orange*: Toreador; *Scarlet*: Rex Rubrorum and Imperator Rubrorum. The Rose Blanche is an eight-inch variety, the Murillo, Toreador, Tournesoil and Tournesoil Yellow are nine-inch varieties and the others reach a height of ten inches.

Tulip beds and borders should be given a light top-dressing of stable litter late in the Fall or after the ground freezes, and remove the most of this early in Spring, as soon as growth begins, retaining enough to protect from severe frost. If all the litter is left on, the new growth will force itself up through and be injured when an attempt is made to remove it. It is a good plan to leave a quantity of litter convenient for replacing at the approach of a cold wave, this can be done by planning for a mulch box.

Hyacinths require practically the same treatment as do Tulips, but should be planted farther apart—from six to eight inches and much deeper—from three to four inches. They are better left in permanent beds from year to year, growing some light rooted annual in the beds as a cover during the Summer months, Pansies, Forget-Me-Nots, Schizanthus and the like making excellent cover. The single Hyacinths make finer spikes and a better display than do the double ones and are, in consequence, generally preferred to the former. In the following list will be found all that could be desired: Baroness von Thuyl, a beautiful, delicate pink; Charles Dickens, an exquisite shade of pink; Lady Derby, one of the finest pink Hyacinths; Moreno, pink; Roi des Belges, brilliant crimson-scarlet, fine bedder; Baroness von Thuyl, pure white; Grandeur's a'Merveille, plush-white—the most popular of this shade; La Grandesse, finest pure white, fine spike, immense bells; La Innocense, the most popular of the pure whites; Mme. Van der Hoop, pure white, very large bells; Mr. Plimsol, an excellent ivory-white; King of the Blues, blue—the finest of the deep-blue variety; Baron Von Thuyl, rich purplish blue, very rich; Czar Peter, light lavender blue; Grand Mäitre, deep porcelain blue; Marie Rich, purplish blue, enormous spike; Queen of the Blues, clear silver azure blue, a grand sort; Ida, one of the best yellows; King of the Yellows, yellow; Odelisque, rich, deep yellow, and Yellow Hammer, fine spike and bells.

In purchasing Hyacinths it pays to get the selected, first size Bulbs, as they will give far better results than the cheaper Bulbs. These can usually be bought for twelve cents each, $1.00 per dozen, or $7.00 per hundred, fifty at hundred rates, which is the more economical way to purchase.

A bed of Tulips

For naturalizing in the grass nothing is prettier than the little Grape Hyacinths — *Muscaria Botryoides* — which grow about six inches high and resemble erect bunches of tiny blue or white grapes. The Grape Hyacinth is one of the few plants that will grow under Pine trees, and it is useful in covering barren spots. This and the well-known Star of Bethlehem may, when once planted, be trusted to take care of themselves. The latter, however, re-

A mass of well-placed double Tulips always forms an exquisite color note in the landscape and where the area permits one should plan such an arrangement

quires much sun, as a general thing, to open the flowers, though I have found some curious exceptions to the rule. Several years ago, having had occasion to dig up a big patch of these Bulbs, I found, when through, that I had a bushel of selected Bulbs. The basket containing these was set in a dark corner of a shed, quite forgotten for a time. The next Spring, chancing to go to the shed for something, I was surprised by a gleam of white in a dark corner, and investigation revealed the basket of Bulbs a solid mass of flowers.

Next of importance to the Hyacinth and to Tulips is the Crocus. Useful as this delicate flower is for filling in beds of Tulips and Hyacinths, the Crocus is only at its best when grown in the grass of the lawn, where it should be planted by the hundreds and thousands. Crocus Bulbs are so cheap—eighty-five cents a hundred for the choice named giant sorts—that the cost can never form a barrier to their liberal use. Never buy the small cheap Bulbs which give but a single bloom, but rather select the giant named varieties, which give from a dozen to twenty or more bloom to a bulb. Plant them, if possible, where they may be seen from the living-room windows, massing them particularly in the shade of trees or where the grass will not need attention quite so early as on the more open spots, as the only precaution required in this form of culture is to not destroy the leaves of the plant until they have ripened. It is usually quite possible to run the lawn-mower over them without cutting the leaves, however, and once planted they will come up Spring after Spring and brighten wonderfully the often gloomy days of March and early April. Do not attempt any regularity of arrangement in planting Crocus, but plant in uneven groups and lines, throwing the Bulbs on the ground and planting wherever they chance to fall. White and gold are the most effective colors, but the blues are lovely at close range. In planting just lift the sod with a narrow trowel or a spud, one person making the incision and another dropping the Bulb, right-side-up, and pressing back the sod with the foot. Set each Bulb two inches deep at least, and that is all that is required.

Probably the old-fashioned single Tulip is the variety most dear to the hearts of all garden-makers

The Snowflake, *Leucojum æstivum*

All the Narcissus family—Narcissus, Daffodills, Jonquills and the like do well in almost any situation and as a general rule should not be disturbed for several years at a stretch. The Poet's Narcissus, which is most in evidence in the Springtime, is only at its best when grown in long double or triple rows, and will give a wonderful display of bloom the end of May. Plant Narcissus Bulbs about twelve inches apart, setting the Bulbs three inches deep in rich, mellow loam and in a well-drained situation. The Narcissus forms its new Bulbs around the old in ever-spreading circles, hence the need of room. The Crocus, on the other hand, makes its new Bulb on top of the old, so we put it deep so that the Bulbs of the third year may still be below the surface of the ground, after which, unless lifted and reset, they will be apt to disappear. The trumpet-flowered Narcissus or Daffodills are equally beautiful in clumps or rows, their higher price, however, usually results in the former manner of planting, the best varieties costing about three dollars per hundred, while the Poet's Narcissus may be had for one dollar per hundred. The newer King Edward variety costs three dollars per hundred. The best of the trumpet-flowered varieties are undoubtedly the Glory of Leyden, Empress, Emperor, Albicans, Bicolor Victoria and the Mme. de Graff.

For naturalizing in the grass the old Von Sion Narcissus is unexcelled, and it is magnificent when grown in long, heavy rows. Speaking of naturalizing, why not plant quantities and quantities of the little Winter Aconite (*Eranthus Hyemalis*), and let it make bright the first windy days of Spring with its little cups of gold growing so close to the ground that they seem just golden stars dropped down in wanton play. They are so cheap and easily planted, one dollar per hundred or a thousand (think of it!) for only eight dollars, that the home grounds ought to glow with them in Spring.

Most of the occasional Bulbs which the catalogues advertise, like the Chionodoxias, Colchicums, Ornithogalumns, Pushkinias, Fritillarias and the like look best when planted in considerable groups in the shrubbery, but they do not, as a general

Double Tulips when placed against brick garden walls are always effective. The variety here shown is the very beautiful scarlet Salvator Rosa

thing, mass well in isolated beds like Hyacinths and Tulips and are apt to break down under rain and wind when in small clumps.

There are two beautiful sorts of Bulbs not nearly as much grown as they should be, and those are the Ixias and Sparaxis. To be sure, these are not as reliable as Tulips and Hyacinths, but well repay the extra care they require. They should be planted in solid beds, not too large, so that it may be possible to give adequate protection. Set the Bulbs which are small a couple inches apart and two deep and cover the beds with several inches of dry leaves, and over these place a big, loose box or frame of boards which will effectually shed water, and success will be yours and a most lovely bed of exquisite form and color result. Remove the covering carefully in the Spring and leave a portion of it handy to replace should occasion require. When the foliage had died down, dig the Bulbs and store in paper bags in a cool, dry place till the following Fall. Ixias may be had in mixed colors for one dollar and seventy-five cents a hundred and Sparaxis for one dollar a hundred.

Then there are the hardy Lilies, lovely and beguiling, though often so short-lived that one must be always renewing them. Nevertheless, few flowers pay better in results than do Lilies, and Lilies, especially the great white Auratumns, Giganteums, and the cheaper but equally lovely Candidums and Longiflorums. The largest and most expensive Lily Bulbs are not necessarily the most desirable. Rather the second sized ones should be selected, for the big Bulbs have one more year less of life, having reached their acme of size and perfection. The most important essential of Lily culture is good drainage, rich soil, free from fresh

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Tulipa Retrophela

The Grape Hyacinth

Two types of Pheasants—the Golden Pheasant and the Mongolian Pheasant

Keeping a Few Pheasants

By E. I. Farrington
Photographs by Thomas Ellison and others

FINE feathers do make fine birds in the case of pheasants, in spite of the old adage. These birds are bred for their fine feathers and for nothing else when kept in confinement, although they are of special value in destroying insect pests when allowed their liberty, and for that reason are being propagated on a large scale by several of the states, which have established extensive pheasant farms. All over the country there are people who keep just a few birds because they admire their beautiful markings. Probably more people would keep them if their general care were better understood.

Newly hatched pheasants are extremely delicate, but mature birds are hardy and strong. Pheasants do not suffer in cold weather, for they have a very heavy covering of feathers, but dampness and draughts must be avoided with the utmost care. The aviary should therefore be constructed with one side or end entirely open, except for inch-mesh poultry netting stretched over it. A canvas curtain may be dropped if necessary to keep out beating rains.

The floor should be built up at least a foot higher than the outside ground in order to make sure that it will always be dry. A dirt floor is as good as any, but should be covered with gravel two or three inches deep, which should be replaced at least twice a year. Pheasants are exceptionally neat and the amount of labor needed to keep their pens in a sanitary condition is not great.

It is most important to keep out rats and other marauding animals, for the birds often choose to roost on the floor. The best protection against rats is a cement foundation wall reaching to the frost line. Hemlock boards painted with a commercial preparation offensive to rodents may be used instead, or inch-mesh poultry wire may be sunk into the ground a foot or more deep all around the house.

As pheasants are exceedingly shy, it is well to make a retreat in their pen, where they may find seclusion. This may be done by boarding off a corner, with a small entrance hole made in the bottom board, or by placing a few short evergreen bows in a corner. A perch or two will complete the equipment so far as ordinary requirements are concerned.

There should be a yard attached to the house, if possible, but it must be wired over or the pheasants will soon leave it by the air route. Netting with inch-mesh is the best for use, as it will exclude sparrows, which vagrant birds will otherwise consume more grain than the pheasants. Being covered, these runs need not be high—four feet is ample.

It is not wise for the amateur to attempt hatching pheasant eggs until warm weather is established; if he does, he will almost certainly suffer so many losses as to be discouraged. The first of June is sufficiently early in the northern states to have the young birds make their appearance. On the other hand, they ought to be out before the excessively warm weather comes on. It is necessary to give the youngsters every advantage.

From 21 to 26 days are required for incubating the eggs, according to the variety. Bantam hens are used almost exclusively as sitters. Pheasant eggs are so small that twenty of them may be put under a hen of ordinary size, but it is better to use a light hen like a Bantam, and to give her not more than ten eggs. Then the poults will stand a better chance of surviving the manifold dangers of infancy, for if there are many young birds, some of them are almost certain to be stepped on or to stray away.

The hens are commonly set in boxes in the bottom of which a shovelful of earth or an inverted sod has been placed. It is well to set two hens at the same time, so that if many of the eggs prove infertile when they are tested on the seventh day, those which remain may be given to one hen and the other hen released from her task.

It is a common practice to remove the eggs from the hens just before they are due to hatch and to place them in an incubator, raising the poults in a brooder. The reason lies in the fact that hens frequently transmit a disease known as white diarrhoea to chicks, which does not affect the old hens to any appreciable extent, but is considered fatal to young birds. If the poults are then raised on the ground where poultry has not run for four or five years, they are not likely to contract either disease or lice until old enough to resist infection. This plan is really the secret of raising young pheasants and when it is remembered, success follows.

At any rate, it is a precaution too important to neglect.

If hens must be relied upon, it is advisable to place chicken wire with a half-inch mesh around the nest; otherwise some of the poults are pretty sure to stray away. The newly-hatched birds are very active and start out to see the world as soon as fairly dry; and they can crawl through an astonishingly small hole. Often some of the eggs are tardy in hatching, so that the birds which first break out of their prisons are running about long before the hen is able to leave the nest in order to look after them. Brooder poults, too, must be confined with a closely woven wire netting as soon as they begin to wander from under the hover. A little wire yard made in the shape of a half circle will prevent their straying away from the heat too far, and as they work their way along the wire, they will soon find themselves back in the hover.

A custard made of eggs and milk together may be given after the poults are 36 hours old, and this ration continued three or four days, when a change to very small grains and seeds with a little Hamburger steak three times a week may be made. The little birds will eat only a small amount at first. In raising pheasants abroad, ant "eggs," which are the pupae of ants taken from ant hills for insect food, are considered very valuable in raising young birds. In this country maggots have been cultivated for the same purpose. There are concerns in England now which market ant "eggs" in boxes for the purpose of feeding young pheasants.

By the time the poults are four days old they will begin to forage a bit and should be given in an open-air run on sod. A few piles of brush scattered about make good shelters and the young birds will seek them at the slightest alarm.

When the poults are nine or ten weeks old they are well feathered out and ready to dispense with the ministrations of the mother hen, if hen-reared. After that age is reached, they also become hardier and if permitted to follow their natural bent, will take to roosting in the trees. When four months old they are nearly full grown.

Mature pheasants may be fed like common poultry twice a day, over-feeding be guarded against.

Mating pens should be made in February. When pheasants for breeding purposes are purchased, it is well to have them delivered in the Fall or early Winter, so that they will become accustomed to their new surroundings before the breeding season arrives.

The eggs are not laid in nests, but on the floor, often in the most secluded spot available, but in no regular place. Sometimes they are dropped from the perches, in which case the latter may be removed during the laying season, but as a rule, the eggs are laid in the early evening, and of course, must be gathered at once, so that they will not be broken and the egg-eating habit formed.

There are many handsome varieties of pheasants, but

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A typical pheasant nest containing eggs which are so small that twenty may be covered by a setting Bantam

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

"WHY COLONIAL?"

By Harry Martin Yeomans

AS one peruses the various publications devoted to Architecture, Interior Decoration and kindred subjects, he will notice a great many articles advising the use of what is known as the "Colonial" style, both in architecture and furnishings. So the question naturally arises, "Why Colonial?" I will try to give here a few of the reasons why Colonial furniture makes so great an appeal and is especially appropriate for American homes.

Most of the furniture brought to this country by the settlers of the original thirteen States, or made by them, was heavy and crude in appearance and made of oak or walnut.

At the beginning of the Eighteenth Century mahogany furniture, having Dutch tendencies, made its appearance, the chairs and tables having the cabriole or bandy legs which are so characteristic of the Queen Anne style. This constituted the real Colonial furniture or furniture used in the colonies prior to 1776.

About the year 1725, the influence of the Italian Renaissance made itself felt in England, and the classic details of that period were reflected both in the architecture and furniture of the time. This was the beginning of the English Georgian period.

We borrowed the English Georgian architecture and copied the furniture as well. This was only natural, of course, for, as there was a demand for better things in the way of furniture, quantities in the prevailing styles in England were imported, the American cabinet-makers using it as models, and since that time this beautiful mahogany furniture has been known in this country as Colonial furniture, although most of it was designed and made in England during the Georgian period.

About 1750, Chippendale, the great English carver and cabinet-maker, was creating a sensation in London with his new productions. He broke away from tradition and created new designs and adapted Gothic and Chinese detail to his own particular needs. He worked out his artistic ideas in pieces which had never been seen before and which were eagerly purchased by his clients. Chippendale worked almost entirely in mahogany and some of his chairs and tables were elaborately carved, showing a great deal of French influence. He made sofas, chairs, card-tables, mirrors, fire-screens, tea-tables, and candlestands, all of which were both useful and beautiful, and became immensely popular as they were so well adapted to everyday needs. Chippendale had three worthy contemporaries, Shearer, Hepplewhite and Sheraton, who followed out his ideal of creating beautiful furniture for utilitarian purposes, and no matter whether their inspiration was drawn from Dutch, French or Greek models and motifs, they gave them an original and sane interpretation, which was exactly suited to the English temperament.

The products of these artists found their way to our shores and filled a long-felt want in the homes of our forefathers, just as they had in the Georgian homes of England. Their graceful contours and beautiful outlines made a big appeal and have since stood as sponsors for the good taste and judgment of our forebears. All of this furniture was copied and adapted, more or less freely, although the general designs of the English furniture were adhered to.

Since the day that Colonial furniture first fell into disfavor, until the revival of its use about thirty years ago, we have developed nothing in the way of furniture that was worth while. It has stood the test of time and lived to triumph over the "dark ages" of the Victorian period of 1860. We have had fads and fancies in furnishings, but they have not survived, because there was no big, dominant thought behind the impulse that created them, and they could not stand the most crucial of all tests; they could not be lived with day after day without one growing tired of them.

That is why Colonial furniture is favored so much by architects and decorators. It owes its being to the social conditions and demands of a people, analogous to ourselves, at a time when the complicated domestic arrangements, as we now know them, were just having their beginnings. Owing to its convenient size, sane designs and multiplicity of articles, it can be used in every room of a house or apartment, and the longer you have it about you, the fonder you will grow of your cherished mahogany. Its simple elegance and refinement enable it, like cultured people, to fit into almost any environment and not seem out of place.

I remember seeing some Hepplewhite shield-back chairs, together with a sideboard and table, after designs by the same artist, standing in solemn dignity in a paneled dining-room. The paneling was not elaborate; the simple expedient of wooden moldings, with the egg and dart motif, being used to break up the wall space into panels above a wainscoting. The walls had then been painted a dull, old-ivory tone and yellow brocade was hung in straight folds at the windows. As I admired this beautiful room, my thoughts traveled backwards to a living-room in an old New England farmhouse. A beautiful sunny room with a winger chair by the fireside and a mahogany sewing-table close at hand. The floor was covered with strips of rag carpet, and the plain yellow paper on the wall made a fitting background for the old mahogany furniture scattered about the room. Although the wall covering cost but fifty cents a roll, the Colonial furniture did not lose any of its charm and dignity on account of being in an humble setting, and this farmhouse living-room possessed the same air of good breeding, as the more pretentious dining-room with its paneled walls.

When decorating a room with Colonial furnishings, it is,

of course, desirable to have genuine old pieces if one can go to that expense, but nowadays all of the good shops carry reproductions of the best examples of furniture by Chippendale, Hepplewhite and Sherarton.

"MOUNT PLEASANT" ON THE SCHUYLKILL

(*Continued from page 353*)

glimpses and only disappear entirely when we look directly at them to be assured of their reality. They all form a part of this as of any old house, intangible and elusive, to be sure, but none the less real.

So much, then, for the past. Let us look within the house as it now is. A spacious hallway as wide as a room runs through the house from east to west. In Summer if the doors at the ends are open, delightful prospects open up in either direction. The detail of classic ornament on cornice, pilaster and door trims is wonderfully rich and remarkably well preserved. To the north of the hall is the great drawing-room, running the full depth of the building, with windows looking both east and west. In the middle of the north side is a full-throated fireplace, above which is an elaborately wrought overmantel in whose central panel one instinctively feels that a canvas from the brush of Gainsborough or Kneller ought to hang. The door frames, with their heavily molded pediments, are exceptional. In fact, all the woodwork, both downstairs and up, is richer in elaboration of detail than is usual in our Colonial Georgian. The walls of the drawing-room are colored yellow, thus making an excellent foil for the white paint of the woodwork. To the south of the hall is the dining-room, beautifully panelled all the way to the ceiling above and on both sides of the fireplace. The kitchen is in the basement. East of the dining-room is an L extension from the hall and there is a wide, easy, wainscotted staircase, with a balustrade of gracefully turned spindles, ascends to the second floor. The hall arrangements above are the same as below—the L extension for the staircase and the wide central passage running from east to west. At the opposite ends of the hallway, immediately above the pediments of the doors on the floor below, are Palladian windows of excellent proportion and refined detail. South of the hall, and directly over the dining-room, is the great bedroom, where the wood carving is richer than anywhere else in the house. The overmantel is carved with an exuberant wealth of design rarely seen, and deeply-tooled acanthus brackets at the door heads support ornate lintels and pediments. On the north side of the building are two ample chambers, each with a spacious corner fireplace. The third floor is reached by a narrow staircase built in the walls and hidden from view by closet doors at the entrance to one of the bedchambers. Although the third floor rooms are low-ceiled with sloping walls and dormer windows, it is said that Arnold and his lady frequently occupied one of them when the number of their guests made it expedient to vacate their larger quarters below.

Whether these old Colonial houses be large or small, they all have a message for us. They have a breadth of proportion combined with a quiet dignity and honesty of purpose that we to-day should do well to cultivate in our building. It is gratifying to say that "Mount Pleasant" has fallen into good hands. The city has entrusted the property to an automobile club, "La Moviganta Klubo," whose members and officers have spent liberally for intelligent restorations and repairs. A competent custodian is in charge.

An excellent example of a bedroom in the Colonial style

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

OCTOBER IN THE GARDEN

Photographs by Nathan R. Graves

WHEN October comes to tint all growing things with gorgeous color borrowed from Autumn's inexhaustible palette, it almost seems as though Nature were trying to remind man, that though the season of lovely flowers be almost past, we should hold in our memory the thought of the colorful gardens we may hope to have next year if we now turn our immediate attention to Fall planting for the coming Spring and Summer garden. Elsewhere in this number of AMERICAN HOMES AND GARDENS our readers will find articles especially upon the subject of Fall planting in the matter of garden flowers, both hardy Perennials and Bulbs, but October is not, by any means, a month of idleness in other gardening operations.

ONE cannot have a better time in the year for the planting of trees and shrubs upon the home grounds, except in those parts of the country where the Winters are of unusual severity. Before the garden-maker sets out with his pleasant task of planning improvements along these lines, he should take the time to consider the climatic conditions of the locality wherein he lives, and make up his mind whether or not the trees and shrubs of his choice are adapted to these conditions. Because one likes this tree and this shrub or that is not alone sufficient warrant for determining to set it out of the soil, exposure and seasons are not fitted to its needs. In planting trees and shrubs of any sort in poor soil, one should see that some good compost is dug into the earth of the "floor" that is to receive the roots to a depth of at least six inches. The hole dug in the soil for the plant newly to be set out should be fully fifteen inches wider than the actual size of the root-ball of the plant.

The Primula should find a place in every garden

THIS is the month wherein must be performed the task of placing manure over the garden. This should then be spaded or ploughed in before the approach of November. The fallen leaves that have been collected in raking the lawn throughout the Autumn can be saved to use as a mulch for the garden and shrubbery beds. Those who are so fortunate as to have hardwood trees upon the premises will find that the leaves from such trees are the best for the purpose of mulching.

HARDY climbing Roses may be planted now if this is attended to immediately. Other Roses, too, planted in the Autumn, will probably produce good blossoms by next June. Of course, Rose plants should not be set out after the ground freezes hard and they must be mulched carefully before the Winter comes on. It is always safe to provide all Roses with protection throughout the Winter. Among the varieties of Roses for Fall planting, one may suggest the Crimson Rambler, the *Rosa Wichuraina* (climber); such hardy perpetuals as the Frau Karl Druschki (white); Margaret Dickson (white); Paul Neyron (pink); General Jacqueminot (crimson); and the Prince Arthur (crimson). Although many garden-makers plant Roses in the Fall, it is best to wait until the Spring planting season for setting out new bushes, although the beds may be prepared in October in advance. In planning for a Rose garden or for a place in the general garden wherein Roses are to be planted, select a location that will enable the Roses to receive the full sunlight, for they are sun-loving plants. They should also have a rich soil into which manure that is well-rotted has been worked to a depth of at least two feet.

PLANTING DISTANCE FOR ROSES

A READER of AMERICAN HOMES AND GARDENS has written to ask how far apart Roses should be planted. Although various articles in this magazine have, from time to time, answered that question, it may interest readers in general to hear repeated that Rose plants should not be set

closer together than three feet, while climbing Roses and the Rugosa varieties should not be placed less than four feet apart. In connection with the subject of Rose growing, the garden-beginner should be reminded of the fact that old Rose plants that have held their place for some years in the garden should be lifted every five or six years, during October, for the purpose of enabling the garden-maker to enrich the soil in which they are to be re-set.

GARDEN LABELS

IT often happens, especially with the garden beginner, that he neglects the very important matter of providing labels to identify the spots in his garden where he has been setting out bulbs and roots at Fall planting time. One may have an excellent memory, but when Winter comes along to change the aspect of things he will find that by Springtime there is something of confusion in his mind as to where this plant or that was placed. All this will interfere seriously with his Spring planting work or with his preparations for it; therefore it will be well for every garden-maker, experienced or not, to take thought of marking the location of the plants he sets out this Fall by means of labels.

BULBS FOR FALL PLANTING

(*Continued from page* 363)

manure and containing a liberal quantity of pure, sharp white sand. When these essentials are absent, supply them or do not attempt the culture of Lilies. Plant preferably among shrubbery or hardy Perennials, giving the Lilies the protection of the shade both in Winter and Summer, for at this time they suffer if the sun shines directly upon the ground about their roots or upon the stems. Also the roots of the shrubs insure better drainage. Plant Lilies deep—not less than nine inches for the big sorts. Have the soil deep and mellow for at least eighteen inches and make a separate hole for each Bulb. Place clean, sharp sand in the bottom of this and on top of that a little pad of sphagnum moss on which to set the Bulb. Drop over the Bulb enough sand to cover it and fill in between any loose scales —though if any broken scales exist they should be carefully removed and may be used to start new Bulbs by planting in sand an inch from the surface near the main Bulb. If a little sulphur and charcoal is mixed with the sand and soil about the Lilies it will tend to ward off decay and the dreaded Lily disease. Plant such tall-growing Lilies as the Anunciation, Giganteum, Browni, Washingtonianum and the like in groups of half a dozen or more. The Speciosa Lilies are excellent for bordering beds of taller sorts but do not show to advantage back in the beds. The little coral Lily (*Tenuifolium*) is charming for a border, but is not a persistent form.

For establishing in the hardy border there is nothing daintier than the little Anthericums (Saint Bruno's Lily) with its tiny bells so much resembling the Lilies of the Anunciation. The little plants do not do much the first year after setting and may disappear entirely the next year, only to appear later, and from then on will increase in size and beauty. "The Lilies are ringing their bells" seems especially to apply to these dainty flowers, and almost one can believe they hear a soft, silvery peal as the wind stirs their fragile cups. Once planted they should not be disturbed.

There are always little nooks and corners in the home garden where violets will thrive

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

DEVELOPING HABITS IN THE CHILD

By Elizabeth Atwood

THERE are many ideas as to when one should begin training the small child. I am convinced that the work should begin at once. The nurse who cuddles the little mite every time it cries, lays the foundation for trouble. The mother, when she gets up and has the care of the baby, finds a battle on her hands, for baby has already learned his first lesson and knows that crying will bring the attention he longs for.

Here is where life-time habits are to be started, for that wee four-week's-old mite already has an intelligence greater than the young mother realizes. Here is where the lesson of self-control is in its A, B, C's, but as surely will this very early habit merge into a real understanding of self-control, as that the knowledge of letters lead to spelling. Therefore, training should begin at once, if the child is to be trained at all.

There is the theory, unfortunately lived up to by some, that training the young child will kill spontaneity. I have seen children brought up by mothers who had this idea. What was the result? Just this: No conversation with the mother was possible, because the spontaneity of the child led him to climb into her lap, pull down her hair, or kiss her on the lips while she vainly tried to talk. When he was forcibly placed down from her lap, he would lie on his back upon the floor, and kick his heels and sing or cry—whichever way he happened to feel—making so much noise that conversation had to stop.

Outside friends do not care for that kind of spontaneity, and it is a gross injustice to the child. We all desire that our children may be loved, not for their looks but for what they are, and what they promise to be. Every year has strengthened the self-will in the child who has no control, and no theories will make such a one an agreeable comrade while he is in the making.

Another idea is, according to my belief, equally unjust to the child. This is: That when the child is old enough to understand, then will be the proper time to control him, or rather teach him to control himself. Then it will be too late, for the habits are already formed which will influence him all his life. Through habits of regular feeding and sleeping, which are not always easily formed, the baby gets his first idea of self-control and being controlled.

The baby who is fed by the clock from the time it is three days' old until it is grown up, is learning wisdom and temperance in his appetite. The small boy who has a tiny piece of sponge cake, his little cup of custard, fruit juice, or even a peppermint, is learning that a higher law than personal liking governs the universe. He does not reason out the details, but he does learn that some foods are not good for him; therefore he cannot have them. There can be no denying that the worst thing for a human being is self-indulgence, and the sooner the child learns this fact the better for the child. From the time he is born he should be trained to govern his habits and his desires. If the stroke of twelve invariably means a nap, and six means bed for the night, the child is unconsciously becoming methodical and learning the value of habit.

Some mothers will say, "But my baby won't do that." He will, if you stick to it. It is just a question of your own determination in the matter. It will be a matching of wills, but you, knowing the course to be a right one, must be firm. You must expect howls at first, if the beginning has been wrong, but when you see your boy of six, well and strong, obedient and easily controlled you will be thankful that you braved the battles which made such results possible. That grounding of self-control leads to an orderly, systematic life, to say nothing of the peace and comfort it means to the mother—and her friends.

The extreme of the modern system is not so bad as the extreme of the old one, although it is better for a child to be taught to be a Spartan than for it to be a pampered pet. I do not care for either. I prefer to have my children normal, healthy, mischievous "imps"; but at the same time, with a groundwork of absolute rules of living, obedient and amenable to discipline. This control of the small child helps over many a hard place when he is a big one, and self-indulgence is reduced to its lowest terms.

When a child of two years, more or less, begins to be fussy and restless, how many times one hears: "Oh, I wish you were old enough to amuse yourself!" This is the beginning of the never-ending search for knowledge on the part of that developing mind. Even at that early age, you may so direct its attention through its play that much may be taught which can influence that child all through its life.

The child is always happier doing something which it has seen its mother do. If you pile up the blocks in a certain way the child will work—and it is work for the little one—to pile the blocks in the same way. But, always encourage the small one to finish the work he undertakes, even at this early age, for, in the completion of his little task, is the beginning of one of the greatest factors of self-help—determination to succeed.

It is not nerve-wearing to the child to put square blocks together in such a way that H, L and T are formed, and it is very interesting. Take the letter H for instance. Four blocks placed in a row, with two blocks above each end and two blocks placed below and H is formed. When you point out the resemblance to the letter H on a block the little one will see it too.

I have done this and know just how it works. I always helped the child to make the lines of the blocks true, and

always counted the blocks. Day after day that little child was impatient for the block-game. Out of it I know she learned a great deal.

This was an introduction to numbers in which she always excelled in after life. When I took the letter E, I used five blocks laid upright with two placed in horizontal lines from the top and bottom and only one in the middle. She never placed five blocks horizontally top and bottom and never, after the first day, placed more than one in the middle. It was a long time before she said words to indicate counting, but she did something like counting every day in this placing of the right number of blocks. Her game became no less entertaining because directed along these educational lines.

Whether or not this game of block-built letters influenced the development of this child's mind or only brought out what was sure to come, she became a skilled designer, and graduated at an early age, a full-fledged architect. You never know just when the seed is planted which produces the fruit of later years, but you do know whether you are enriching the soil and making the proper preparation for after life. These early formative years are of vital importance.

The child who is allowed to finish building his house of blocks learns to complete his work before leaving it, so mothers should think twice before interrupting the child's play. It is better to wait a time for the child than to encourage habits of careless endeavor. In this way habits of fulfillment will be started, as well as respect for the rights of another.

It always grieves me to hear a child called to do this, that or other thing, when he is absorbed in a book or in his play, and then to hear him scolded if he does not start at once. How many times I have done the same thing. But is it right? Has the child no rights which should be respected if we would have him considerate of us in later life?

To the child his play is so important a thing, and yet how many times we compel the clearing up process when he is absorbed in working out some idea with his playthings. Now I am learning that this is detrimental to the child, for it surely is the beginning of a discouraged way of doing things. Sure of an interruption, gradually the child takes less and less interest in the ending of his work and his play, and this we know is a sad thing, when in later life his play has become work calling for great endeavor and determination to see the finish.

An active, honest conscience is one of the greatest possessions a human being can have, and habits of truth ought to be trained into the child from the very first. We older ones stand as patterns, a daily example to our children. If we are not absolutely honest, can we expect absolute honesty and truthfulness from them? When a mother makes a promise to her child she should keep her word.

The habit of helpfulness can be begun very early. Baby soon learns to wait upon you if you show him how, and finds enjoyment in it. This helps to prevent the growth of a selfish tendency. It is fair to assume that the little ones who are taught to run and pick up the spool or thimble which has dropped from mother's lap will have a feeling of watchfulness for the comfort of others when grown. The habits of a lifetime are forming in these little children and the responsibility is always great, and is, generally, belonging to the mothers.

It is true that we have to deal with heredity, temperament and environment in the molding of a child's character and habits, but, if we keep our own ideals of what we wish them to be constantly before them, helping them through our care and consideration of their rights as well as ours, we surely will have better results than if we allow them to live their first six years without training.

After years of experience and observation, I feel confident that it is far easier, far wiser, to work for good habits from the first, than to let perversity and selfishness get in their work and then try to make corrections and to create new habits. The struggle is too great, the possibility of failure too evident, for such a risk to be taken.

A PINEAPPLE RECIPE

By Mary H. Northend

Sliced Pineapple with Farina—Cut a pineapple into slices quarter of an inch thick, and then in halves. Sprinkle with sugar, and set away in a cool place until ready to use. At serving time, arrange, standing on edge, around a mound of farina. Place the sprout of the pine in the center of the mound for decorative effect. To prepare the farina, to a quart of rich milk, add one tablespoonful of Sea Moss Farina, shaking gently into the milk to prevent lumping, and half cup sugar. Flavor with pineapple juice, if desired. Cook slowly until it begins to thicken, which will be in about thirty minutes Turn into a mold, and set away to harden. Canned pineapple can be used as well as fresh fruit, if the fresh fruit is out of season.

A HOUSE AT READING, MASSACHUSETTS

(*Continued from page 350*)

ing, and as a result each feature here is distinctive. Nearly opposite the entrance is the fireplace flanked on the right by built-in bookcases, arranged one on either side of a French door opening on to the living porch. At the left is a built-in cupboard and beyond a long seat, extending beneath a broad window. Windows on three sides of the room admit an abundance of light and sunshine, and the cheerful effect thus created is enhanced by the pure white of the trim finish, and the soft coloring of the wall hangings.

The dining-room shows interesting details, and in finish is especially attractive. Built-in cupboards, the upper portions glass enclosed, flank the entrance from the hallway on either side, and just opposite, quaint casement windows add a touch of interest. Grouped windows at the front render the room bright and sunny, and the setting complete shows to advantage the fine equipment. From the dining-room opens the pantry, fitted up with shelves and cupboards, and from here leads the kitchen, equipped with built-in closets and other conveniences. This apartment is approached from the exterior by a separate entrance, which gives upon a small entry at the end of which is the refrigerator space and closet for brooms. On the second floor there are four chambers, linen closet, and bathroom, each finished with due regard for comfort and convenience, and all equipped with ample closet space and mahogany doors—

a feature throughout the house. The owner's chamber is provided with a fireplace, and from here access is gained to the outdoor sleeping porch. The house complete cost $6.500.

THE BUILDING OF BRICK

(*Continued from page* 343)

eral cases which have come to our notice. We remember one particularly beautiful dining-room with woodwork of white enamel and richly furnished with old mahogany. This wonderfully attractive room was floored with large dark red brick of the sort known as "quarries," while the deep fireplace was lined and faced with a very long narrow brick of a most beautiful rough surface colored a blue gray.

But any plea for brickwork in country or suburbs would be incomplete, without at least a suggestion of its beauty in the garden or the grounds which surround the home. The well-known gateways at Harvard with their beauty of wrought iron and walls and pillars of brick are among the earliest and most successful of good brick building in America during the past twenty-five years. These entrances to the Harvard campus may well offer a suggestion for the entrance to the grounds—large or small—of a suburban home, for such is the nature of brick, that the smallest and simplest piece of building may possess a charm and beauty out of all proportion to its cost if the designing be carefully thought out and the work done with the art of a true craftsman. Then the walls which should surround every well-regulated garden or which should certainly screen every well-designed service entrance combine beauty with utility when built of brick, and if the buildings themselves are of brick and if the entire composition possesses that unity of effect which is the secret of all skillful designing, the result may be beautiful indeed. The use of brick for walks and garden paths is too obvious to require mention, but a word should be said regarding garden accessories, the selection and placing of which do so much toward making the garden the spot of beauty which it should be. Small pools for Lilies or other water plants are often lined with brick for it has been found that brick, particularly of a dark color, affords an excellent background for growing plants and seems to deepen the basin in which the water is held. Fountains of any kind are particularly beautiful with brick as a setting, and some very successful wall-fountains have been arranged by planning a background or setting of brick for some fragment of old marble or even a good cast of heavy plaster or terra cotta suitably treated, the design being of dolphins, a lion's head, or even merely a decorative molding around a piece of small pipe.

The use of brick in American home-building is a subject of so many aspects and of such importance from the standpoint of true economy as well as that of beauty, that it should receive careful study from anyone who is interested in home architecture, as well as from the architect to whom is intrusted the important matter of planning a country home.

KEEPING A FEW PHEASANTS

(*Continued from page* 365)

only a limited number can be commended to the amateur. Probably the kind most commonly and successfully raised is the Ring-necked pheasant, a native of China. The Golden and Lady Amherst breeds are very satisfactory and the cocks are extremely handsome. The Reeves pheasants may be added after a time, being popular on account of its wonderful tail feathers, which frequently exceed four feet. Other varieties are English, Swinhoe and Silver. The pheasant commonly called the Mongolian is really the Ring-necked.

ODDS AND ENDS IN FRUIT

By PHEBE WESTCOTT HUMPHREYS

WHEN the supply of small fruits and berries of Spring and Summer, and the Autumn peaches and grapes have failed to fill the preserve closets, and we must provide the canned delicacies to be utilized for Winter desserts, there is still abundant emergency fruits to be utilized in November. The preserving citron is now at its best, and the practical housewife will make some of her most delicious conserves from this seemingly tasteless melon. The various pears commonly ignored as of little value when simply used as comparatively insipid canned pears will take a front place among satisfactory fruits when their possibilities are appreciated in the form of candied pears, rich-flavored "chips," and pickled, preserved and spiced dainties. The late quinces and crabapples, the little yellow preserving tomatoes, and even the small firm varieties of the red tomatoes, will all contribute appetizing delicacies when the knowledge of their preparation includes spicing and flavoring ingenuity.

PEAR NOVELTIES

PEARS canned in a simple sugar and water syrup should be provided in quantity for the preparation of dainty desserts for Winter use; and while the October pears are at their best—on being gathered just before "hard frosts"—they may be served in many ways with the stewed fruit as a foundation. Cut small rich-flavored pears in quarters, or the large hard pears in thin slices or small dice; and cook in a little water until tender, adding sugar just before they are done to form a rich syrup. Line individual dessert dishes with lady fingers, cover with a layer of the pears and the thick syrup. Heap over the pears a puff of whipped cream, dot with chopped almonds; and this dainty "pear trifle" or "pear surprise" will form a dessert demanding frequent repetition.

PEAR PORCUPINES

THERE are two quaint and appetizing methods of forming "porcupine pears;" one for future use, and one for immediate serving. For the former select small pears that can be used whole and quickly cooked tender. Rub each small pear thoroughly, remove the stems and blossom end, but do not pare or core. Then stick whole cloves in the pears, on all sides; inserting the cloves deeply into the pears with only the blossom end showing. Then prepare a good spicy syrup in the proportion of one-half pint of vinegar to every cupful of sugar, and a generous bit of stick cinnamon. Boil the clove-pierced pears gently in the syrup untill they are thoroughly tender, without loosening the cloves. Seal in wide mouthed jars; and when served during the Winter the whole pears will not only present a novel appearance, but will have a peculiarly delicious flavor from the softened cloves, and the spiced syrup.

When prepared as a dessert for immediate serving, the porcupine pears may be stuck full of sliced almonds, instead of the cloves. Shell and blanch large almonds, and cut them carefully with a sharp knife into lengthwise strips. Cook in plain sugar and water syrup small pears used whole, or large ones cut in half. When tender remove from the syrup and stick the pears full of the almond chips. Dissolve half a box of gelatine in water, add to the hot syrup; flavor with almond. Place the gelatine syrup in a flat, shallow dessert dish, and set in the ice box. When cold and firm place the syrup porcupine pears on the gelatine, and serve very cold.

PICKLED PEARS

In these days of plenty, when Keifer pears may be secured in quantity at small cost, their possibilities should be better understood. While the Bartletts and Seckel pears are preferred for quick desserts, and the numerous small autumn pears known as "preserving pears," are the favorites for "putting up," the comparatively tasteless Keifers receive small consideration. In reality they may be used in many ways; as the firm fruit is readily cooked tender without mashing, and may be spiced and pickled and flavored and preserved indefinitely.

For the plain sweet pickled pears, cut the large fruit into quarters without paring. Make a syrup of one half pint of water, and one pint of vinegar to every pint of sugar; cook the pears in this until tender, pack closely in jars, cover the pears with hot syrup, and seal. These make a rich appetizer to serve with cold meats.

IN CRAB-APPLE TIME

By R. A. AYERS

IN our dooryard grows a big grafted crab-apple tree, bearing on one side the Transcendent, a large, yellow variety, with a red cheek, early, sweet—for a crab-apple—and full of rich, yellow juice; on the other a late dark-red variety, almost equally good, though its flesh is drier and more mealy than that of the Transcendent. For canning and preserving we prefer the Transcendent, while for pickling and spicing the red variety is almost equally good, and both kinds make the best of jelly—clear, firm and well flavored. Because of its reliable jellying quality, we often add to it plum, grape, blackberry, or some other fruit juice less likely to harden satisfactorily. From one quarter to one half of plum or other fruit will give the flavor of the foreign fruit without losing the jellying quality. For a delicate rose flavored jelly add a rose geranium leaf to the juice when boiling it with the sugar. A single leaf will flavor a kettleful of juice. Spiced jelly is a most delicious relish for cold meats, especially lamb and veal. To make it, add a cupful of whole spices sewed into a muslin bag, to a large kettleful of juice while boiling, removing the bag just before straining the juice into the glasses. Use allspice, stick cinnamon, cassia buds and whole cloves; adding the last with judgment because of its dominant flavor.

For the jelly, cut the crab-apples into quarters and wash them thoroughly in a colander. Wormholes and decayed spots must of course be cut out, but it is not necessary to remove skins, cores, stems or blossom-ends. Place the fruit in a porcelain kettle, add cold water to barely cover, and cook slowly until thoroughly soft. Mash with a wooden spoon or a potato masher, and pour into a flannel jelly bag wrung out of hot water. Drain over night. In the morning measure the juice, add an equal quantity of sugar and boil, skimming carefully until the syrup begins to thicken on the skimmer. Very careful housewives strain a second time, through cheesecloth, before pouring into the scalded glasses. It often stiffens almost as it is poured. Cover with a piece of cheesecloth and set in the sun for several hours. Pour a thin layer of melted paraffin into each glass to exclude germs.

PRESERVED CRAB-APPLES

Cover the crab-apples nearly with water. Cook slowly until a little tender, then carefully skim out and set aside to cool. For every cup of water left in the

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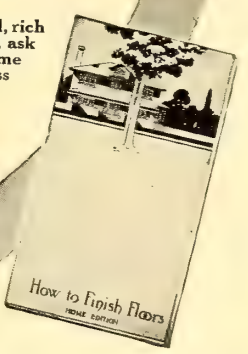

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kettle add two cups of sugar, boil until clear, skim and cool. When both are cold return the fruit to the syrup, and set again over the fire. The moment it actually boils remove it from the fire and put it immediately into cans, sealing as usual.—Mrs. Leaver.

SPICED CRAB-APPLES

Wipe sound, large crab-apples and remove the blossom. In its place put a whole clove and in every fourth apple an extra clove. Put the apples in a steamer and steam until soft; then put them into cans without crushing. For the syrup allow one and one half cups of sugar for a pint of water, and boil until it will just fill a quart can of the apples. Can and seal while hot. Do not remove the stems. —Mrs. Lowell.

SWEET-PICKLED CRAB-APPLES

For eight pounds of fruit make a syrup by boiling together a quart of good vinegar and four pounds of brown sugar. Take a cup of whole spices, comprising allspice, stick cinnamon and rather less of clove than the others, and sew them in a muslin bag. When the syrup has boiled gently ten minutes, add the sound fruit wiped dry, but not peeled, cored, or broken; remove the bag of spices, and seal in quart cans while still hot.

For the spiced pears, make the syrup slightly sweeter, and add a teaspoonful of ground cinnamon and one of mace for each quart of syrup; tie the spices loosely in a bag and cook with the syrup. The tedious process of heating the spiced syrup and pouring it over the fruit for several days in succession (an old-time method of spicing still recommended for some fruits), will not be necessary with the pears. Cut the fruit into rather thin slices easily penetrated by the spiced syrup, cook until the pears are tender and the syrup thick and rich, then seal immediately in air tight jars.

SPECIAL TREATMENT REQUIRED.

For pear jellies and preserves, special treatment will be required. It is useless to attempt to make pear jelly from the pears alone, as they possess very little jelly substance. But when cooked with equal quantities of tart apples the juice (when strained and cooked with an equal quantity of sugar), will form a jelly of the correct texture and a rich pear flavor.

For the preserves use the pears in the usual manner, allowing somewhat less than a pound of sugar for every pound of fruit; and sufficient water to keep from scorching. For each quart of fruit add a small lemon, sliced, and a small piece of ginger root. Stew gently until the pears are done and the syrup is rich and thick; and just before sealing remove the lemon and ginger root which should impart their flavor without their presence being known.

CRABAPPLES IN VARIETY

As every good housewife knows, crab-apples make the very best jelly imaginable, as the fruit is rich in jelly substance. Unfortunately the fruit is utilized but seldom in other ways. The tiny little pink-cheeked apples should be made to form picturesque desserts and sweet pickles; and when stewed whole until tender the shapely little apples may be porcupined and pickled and spiced in the same manner as the small pears.

QUINCE RINGS

Since the quince parings are so rich in gelatinous matter, these with a portion of the cores, will be all that is required for making the quince jelly; and the pared fruit may be reserved for other delicacies. Quince rings will form a novelty for canning for future desserts as well as for immediate use. After carefully paring each large

quince, remove the core with a round apple-corer without breaking the fruit. Then slice crosswise in rather thick rings, with the smooth even hole in each center.

It must be remembered, in forming any sort of quince conserve, that the fruit must not be placed in a sugar syrup for cooking; or it will be toughened. It should be first cooked in plain water until tender, and then added to a rich sugar syrup, just before serving or sealing. To avoid breaking, it will be best to cook the rings in a steamer and when tender simmer for a few minutes in the sugar syrup that has been cooked down thick and rich. For immediate use, prepare half a box of gelatine, following the directions on the box, and using a little of the quince syrup for flavoring. When firm and cold place the quince rings on the gelatine, setting the rings carefully one above another if more than one ring is desired for each individual dessert dish. Fill the centers with finely chopped nuts, and dot the nuts on the gelatine surrounding the rings. Seedless raisins, chopped fine, may also be used for filling the centers of the quince rings by way of variety.

Canned quinces cut in rings (prepared as for immediate use and then canned in the hot syrup without breaking), may form a variety in desserts that appeal to the eye as well as the taste, throughout the winter. When more convenient, whipped cream may take the place of the chopped nuts or raisins; or a little of the syrup from the canned quinces may be floated over the rings.

TO AVOID "GUMMY" JELLY.

The majority of housewives use the entire core of the quince, with the parings, to secure the jelly quince. This method that is so successful with apples is supposed to be the best plan for quinces, but it invariably results in "gummy" jelly, that is far from satisfactory. The glutinous matter surrounding the seeds of quinces will never form clear, firm jelly, like that made from the skins alone, or the skins and cores without the seeds. After saving the parings from a quantity of quinces used for preserves and for canning, allow at least one or two whole quinces for each quart of parings. Stew gently in a little water until tender, and secure the juice by allowing it to drip through a jelly bag without squeezing. Then allow one pint of sugar to each pint of juice for a rich, clear jelly. When done, pour into the jelly glasses, and seal with paraffine and the usual tin or paper caps.

UTILIZING THE PULP

The pulp from the quinces and parings remaining in the jelly bag, after securing the juice, may be used to advantage in the quince jams and marmalades. Press it through a fine sieve until every particle of the rich pulp is secured, and only the dry skins remain. Add this to the quinces cooked especially for the marmalades, all of which should be passed through the sieve when tender, and then simmered gently with sugar—pound for pound—stirring frequently to prevent burning, while cooking down to a firm rich texture. This may also be sealed with paraffine in jelly glasses.

WAY OF THE TRULY GREAT

IT is easy in this world to live after the world's opinion; it is easy in solitude to live after one's own; but the great man is he who in the midst of the crowd keeps with perfect sweetness the independence of solitude.—Emerson.

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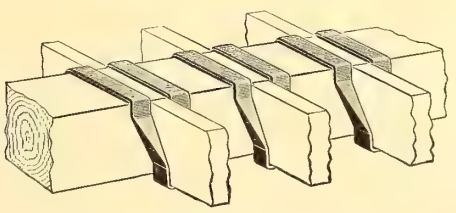

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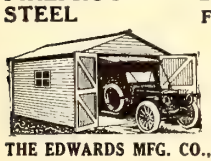

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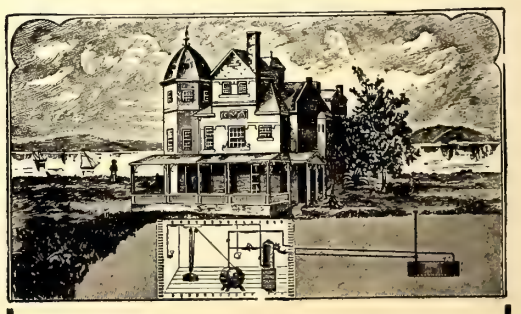

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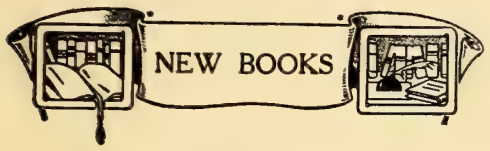

BOOK OF ODES (SHI-KING) OF CONFUCIUS. By L. Cranmer-Byng. New York: E. P. Dutton & Co. Cloth; 16mo.; 57 pages. Price, 40 cents net.

This little volume in the "Wisdom of the East" series, rendered into English by one of its two editors, L. Cranmer-Byng, is a translation of Confucius' "Book of Poetry," compiled by the great Chinese philosopher about the year 500 B.C. from earlier collections then extant. It is the more welcome in that it is removed from only scholarly consideration and, instead, is brought by Mr. Cranmer-Byng to carry to every reader a sense of the spirit of the poems which Confucius felt of such enormous importance to the development of what one might call the "humanities" in China. Too long have the great literatures of the East remained in hand where the letter of the text has been considered to be something all-important at the expense of its spirit. The time has come when one should stand forth and claim his share in the revelation of truth and beauty from other lands and peoples whom our invincible Western ignorance has in the past taught us, perhaps, to despise.

MAKING A TENNIS COURT. By George E. Walsh. New York: McBride, Nast & Company. 1912. Cloth. 12mo. 53 pages. Price, 50 cents net.

This tiny book contains a number of hints that will prove suggestive to anyone planning to construct a tennis court.

LET'S MAKE A FLOWER GARDEN. By Hanna Rion. New York: McBride, Nast & Company. 1912. Cloth. 16mo. 208 pages. Price, $1.35 net.

As the publishers explain in its preface, several chapters of this book have appeared, essentially in their present form, in various magazines. As a pretty little gift-book for one interested in gardening from its "literary" point-of-view. The sentiment of gardens and gardening is of perennial delight and perhaps this little book will bring some breath of this to those who have not before been touched by the love of gardens.

THE WONDERLAND OF STAMPS. By W. Dwight Burroughs. New York: Frederick A. Stokes Company. New York, Cloth, 8vo.; 238 pp.; Illustrated. Price, $1.50 net.

It has often been said that postage-stamp collecting is one of the most educational of pastimes, because of the immense amount of information about history, geography, etc., connected with it. Yet few people understand how many and how varied are the interesting things told on the pictures of stamps. In this book a good-natured uncle with a large stamp collection, tells his nephews and nieces about the veritable wonderland it discloses. He describes the birds and animals from the antelope of Rhodesia to the zebra of Madagascar, the old Greek games, bits of United States and foreign history, curious islands, small records of big wars, a miniature edition of Don Quixote, the ancient myths, thumb-nail maps, Christmas stories, ships and locomotives of all descriptions—all pictured on postage stamps of various countries.

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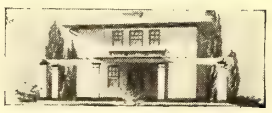

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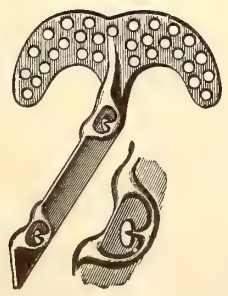
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WHERE THE SHAMROCK GROWS. By George H. Jessop. New York: The Baker & Taylor Company, 1911. 12mo.; 224 pages. Price, $1 net.

This is not a work on the Irish flora, as might be inferred from its title and from its inclusion among reviews of scientific publications, but a simple story of an Irishman's return from America to the land of his birth. It makes light but thoroughly wholesome reading, and its comedy-drama of hot heads and warm hearts is well characterized and distinctly entertaining.

THE ART OF THE VIENNA GALLERIES. By David C. Preyer, A.M. Boston: L. C. Page & Co., 1911. 12mo.; 331 pages; illustrated. Price, $2 net.

In the galleries of Vienna are some six thousand canvases, many of them of the first importance and value. Titian, Palma, Giorgione, Tintoretto, and Rubens, are all well represented, and numerous paintings which bear less familiar names have been acclaimed as almost equal in rank and merit with those of the accepted masters. In short, so rich is Vienna in art collections, that high authority places her above all other cities save London, Rome, Paris, and St. Petersburg. The duo-gravures of the volume commendably reproduce, or at least suggest, the handling of light and shade and the general treatment of the originals. In Bonovicino's "St. Justina"—a picture much praised, which has even been made the foundation of a German novel—we get the atmospheric delicacy, the crystal illumination, for which the artist is justly famous. Van Dyck's "Prince Rhodokanakis" shows a well-lighted portrait; we instinctively acknowledge the charm of the intellectual forehead, the sane and kindly side-glance of the eyes, and the strong, white hand resting upon the sword-hilt. Rubens is represented by "The Pelise," and Rembrandt by the portrait of his mother. Ruisdael's "Great Forest" is a landscape worthy of mention, while in "The Glutton" we find a good example of Jordaens' almost brutal fidelity to the coarser phases of life. Mr. Preyer's descriptive writing is vivid, vigorous, and satisfying. His comparisons are drawn with a sure touch, and the volume as a whole cannot fail to make enthusiastic friends.

THE PRINCIPLES OF HEATING. By William G. Snow. New York: David Williams Company. 1912; Cloth; 8vo.; Illustrated; 224 pp. Price, $2.00 net.

In this volume its author has laid especial stress on the application of the heat unit to the solving of heating problems. It is a technical work by an authority. Among other interesting paragraphs is one on heating small swimming pools.

GARDEN DESIGN IN THEORY AND PRACTICE. By Madeline Agar. Philadelphia; J. B. Lippincott Company. 1912: Cloth; 8vo.; Gilt tops; Illustrated in color; 272 pp. Price, $2.00 net.

In writing this book the author has chosen to omit everything of a purely horticultural nature, such as instructions on cultivation and lists of suitable plants for different soils and situations. Inasmuch as these particular subjects have been covered many times in innumerable gardening books, one is glad to find that here, instead, stress has been laid upon form in garden design. In the last few years an interest in the forms of gardens has been revived, much to the satisfaction of those who realize how much this adds to the beauty of our gardens. *Garden Design* is well worth buying, reading and studying.

THE MASTER SINGERS OF JAPAN. By Clara A. Walsh. New York: E. P. Dutton & Co., 1910. Cloth; 16mo.; 119 pages. Price, 60 cents net.

In times when everything relating to the history and literature of Japan has become of such vivid interest this admirable collection of translations of poems by Japanese poets will be very welcome, especially to those who may not have had time or opportunity to form an acquaintance with more pretentious works by great Oriental scholars. In art, as Mr. Stewart-Dick once said, the European requires that everything should be stated with the utmost fullness of a tedious realism, before he can grasp its meaning, but to the more cultured Japanese a mere hint or slight suggestion is sufficient. The reviewer does not know of a better volume to recommend to the reader who wishes an introduction to this fascinating form of Japanese literature.

CURRENT EDUCATIONAL ACTIVITIES. By J. P. Garber. Philadelphia: J. B. Lippincott Company. 1912; Cloth; 8vo.; 387 pp.

This is the 1911 volume of "The Annuals of Educational Progress," being a report upon education throughout the world for that year. It may be that the activities of the year, here so carefully and capably noted by Dr. Garber, will speedily bring to pass such cordial understanding of the newer functions of the school as to contribute in no small way to the solution of the mightiest problem of man—the problem of imparting to his followers in the procession of men all that has been bound up and labeled as race culture and knowledge, and at the same time so inter-relating this individual to his entire environment and to his inevitable destiny as to make him a worker for his country, a lover of his kind, a reverent believer in his God.

MODERN ILLUMINATION. By H. C. Horstmann and V. H. Tousely. Chicago: Frederick J. Drake & Company. 1912: Flexible leather; 16mo.; Illustrated; 273 pp. Price, $1.50.

Modern Illumination is a handbook of practical information for users of electric light, architects, contractors and electricians. It contains a large amount of useful information, and home builders will find it of service.

PHILIPSE MANOR HALL. By Edward Hagaman Hall. New York: The American Scenic and Historic Preservation Society. 1912. Cloth; 8vo.; Illustrated; 255 pp.

When it is recalled that there was hardly any phase of the pioneer and colonial life of New York and adjacent commonwealth that was not connected, either directly or indirectly, with the site of Philipse Manor Hall, the building or its owners, the importance of Mr. Hall's excellent monograph will be more fully appreciated. The history is an interesting one, clearly set forth and well illustrated and one that every student of Americana will wish to have in his library.

THE FIRST BOOK OF PHOTOGRAPHY. By C. H. Claudy. New York: McBride, Nast & Company. 1912. Cloth. 12mo. 115 pages. Price, 75 cents net.

This is a little primer of the theory and practice of photography for beginners and contains much useful information well presented.

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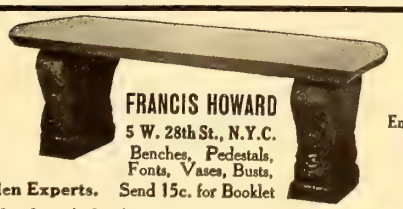

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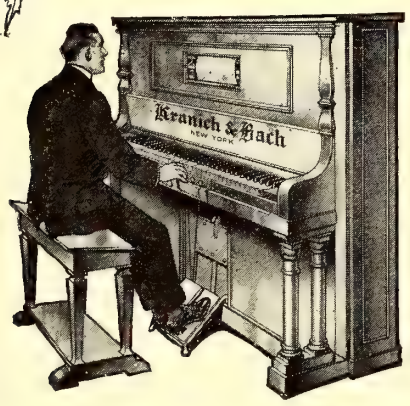

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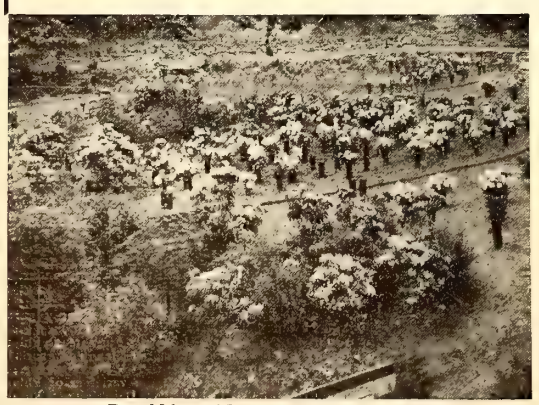

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THE HOME WORK SHOP

By EDGAR MORTON

THERE is perhaps no department of the house so often overlooked and yet which would provide such pleasure and practical help as a small work room which might be called a factory in miniature. In every home, in city or country, there are numerous small repairs to be attended to but which are generally left undone because they are hardly of sufficient importance for the calling in of a carpenter or a plumber. Then too, one can never be quite sure where the hammer is or who has borrowed the nails or forgotten to return the screwdriver, and to hunt up these missing but very necessary tools would require considerably more time, perhaps, than the work would be worth.

The revival of interest in the various arts and crafts has produced a great army of home workers in wood carving, basket making, various forms of metal work and other kinds of craftsmanship which can be developed only with difficulty if one must work in the living room or in some other part of the house where the necessary disorder or noise made would annoy the other members of the family. Even the housekeeper who is most interested in the carbed chests or plate racks which the family craftsman produces will be apt to look askance at the shavings and sawdust which must be made and upon the array of tools required even though she fully realizes their importance and necessity. The members of the family who are tired out with the day's work can hardly be expected to enthuse over the noise necessary in working brass, silver or copper into form, or in the turning of the bathroom into a place for developing the pictures of the family photographer.

The growth of the teaching of manual training has caused its introduction into many public schools and the courses as taught at present pre-suppose if they do not actually require a certain amount of home work which cannot be done to the greatest advantage unless there be some place where the young student may be free to work without disturbing the other members of the household. Many young people, boys particularly, take a keen interest in wireless telegraphy and its importance has caused it to be included in the school courses of one of our largest American cities. To obtain really successful results the instruments used in this form of telegraphy should be placed in permanent position and left untouched by anyone excepting the young operator to whom they belong and this cannot often be done in the family rooms of the home.

Various forms of craftsmanship, such as book-binding and weaving require space where the work may remain for hours or days undisturbed for a heavy book press or a complicated rug or tapestry loom cannot always be removed or hidden away the moment one ceases work, and yet most families would overlook with disfavor upon having these unwieldy and somewhat awkward devices permanently exhibited in the family living room. Almost everyone, young or older, has some hobby and its indulgence, besides often being extremely practical, gives more rest, pleasure and relaxation than is understood by those whose hobby consists in having no hobby, and a little workshop is particularly necessary for those whose tastes are toward mechanical pursuits.

In one small country home there is a workshop shared by three members of the family each of whom is interested in some

form of creative work. One of them is skilled in wood carving and his work bench is stocked with the tools which his work requires and drawers below the bench contains plans, pictures and diagrams of work which is to be done or else is under way. Another of the two has developed a talent for photography and his apparatus with a tiny closet for a dark room, occupies another corner of the workshop. Another corner is fitted with looms and other devices for weaving rugs and other fabrics the designs for which are studied from the pieces on exhibition in various galleries or museums. This particular workshop fills the greater part of the garret of an old-fashioned house and the young workers declare that whatever skill they have acquired in their work, together with their pleasure in attaining it, has been very largely due to their having a place where they could have their carving tools, photographic chemicals and hand looms without inconveniencing the other members of the family.

The most modest space will suffice for such a workroom and in most instances a very small place will be adequate. It may be in a garret, basement or in a building to itself, the requirements being, of course, that it be quite dry, and heated during cold weather even if by only the most primitive of stoves. A fair amount of daylight is, of course, necessary and some kind of illumination at night—gas if possible, or a lamp, though, of course, the best light would be electricity with one portable light attached to a cord that it may be used to illuminate certain spots upon which work is being done. A sink will, of course, be of help particularly if it be provided with hot as well as cold water.

A strong and solid work bench should be provided, though a heavy table can be made to answer the purpose. A vise is required for almost any form of carpentry or craftsmanship where an object must be held rigidly in position and the vise is usually placed at the edge of the work bench. The tools may be placed in racks, for if they be kept in chests or drawers it will usually be found that the tool required is at the bottom of the pile. Then, too, if a rack be used or if the tools are hung in some way it will be much easier to keep their edges in an accurately sharpened condition, which is the pride of every craftsman and which is necessary for successful work.

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YOUNG fruit trees often suffer in Winter from the depredations of rabbits and mice. The best way to prevent damage by these pests is to paint the trunks of the trees with pure white lead and raw linseed oil. Another and simple plan is to wrap tarred paper around the trees or to use wire screening. Some people have found strips of wood veneer easy to handle and satisfactory as to results. Smearing the trees with fresh liver or blood is a method often adopted in rural sections. Feeding the rabbits by cutting off branches and throwing them on the snow is a humane way of meeting the trouble they cause. Rabbits work on top of the snow and mice underneath. A simple way to circumvent the latter is to make mounds of earth around the trees in the Fall and to tramp down the snow when it falls. Corn stalks may be set closely about small trees and tied together with wires in such a way as to prevent either rabbits or mice reaching the bark.

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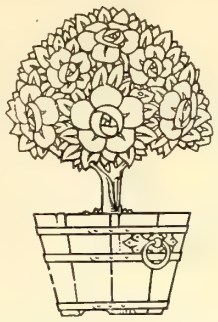

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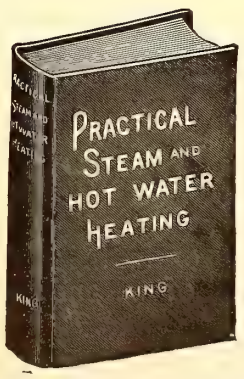

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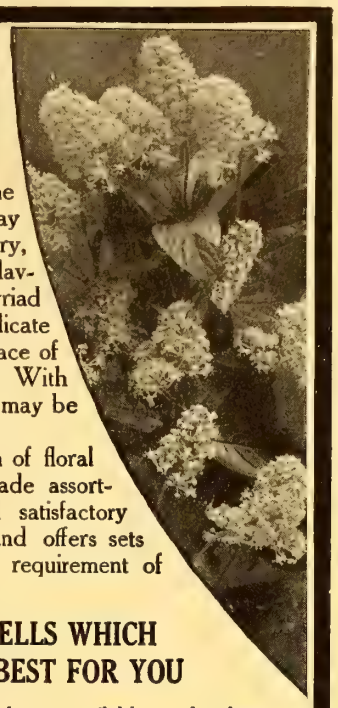

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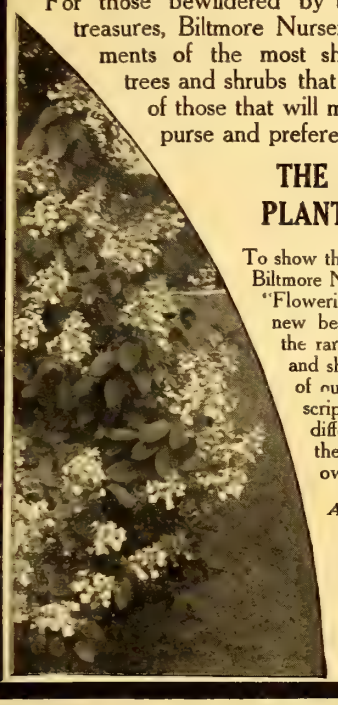

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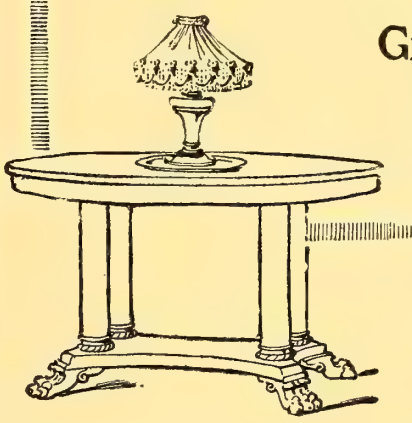

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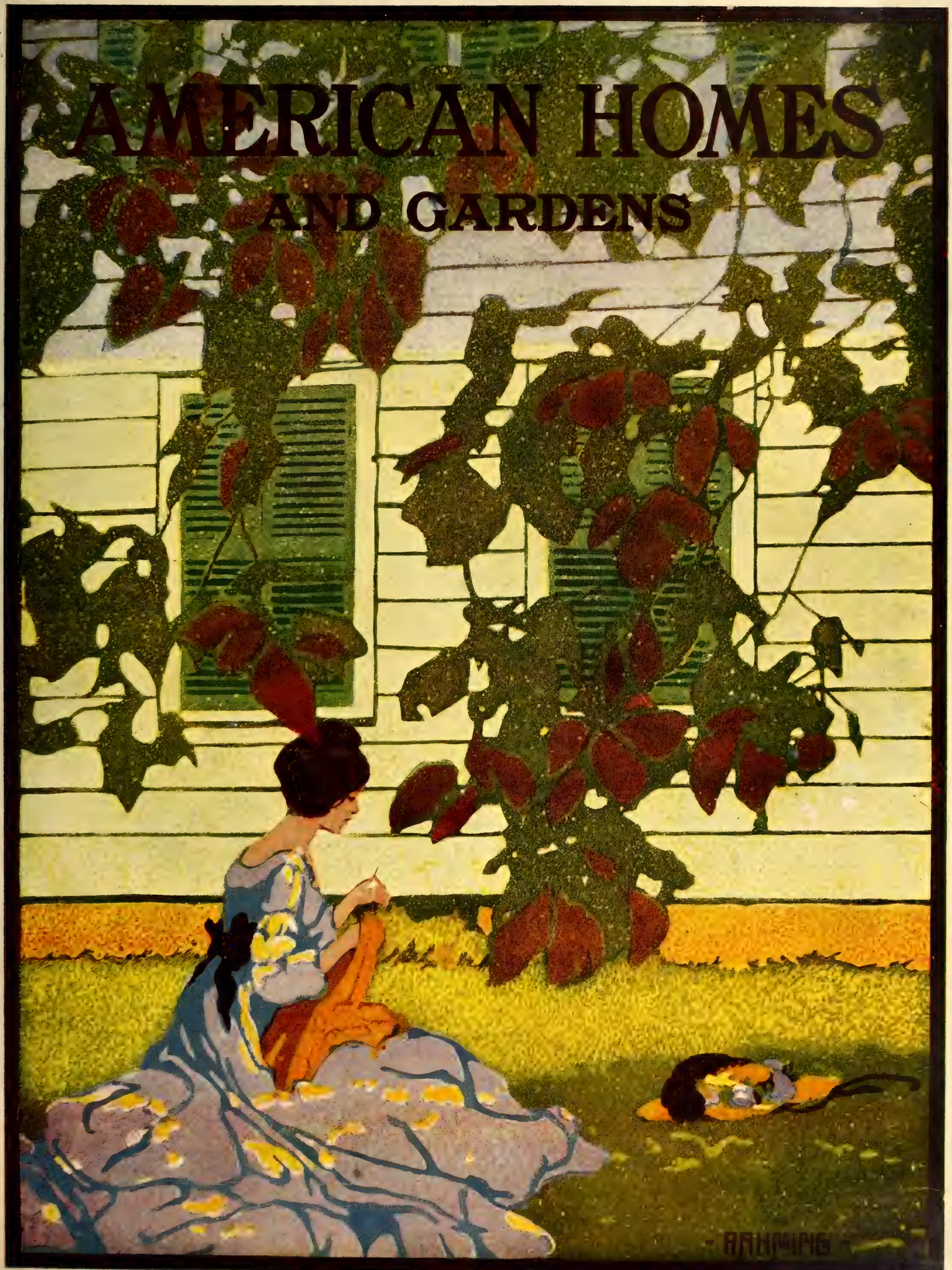

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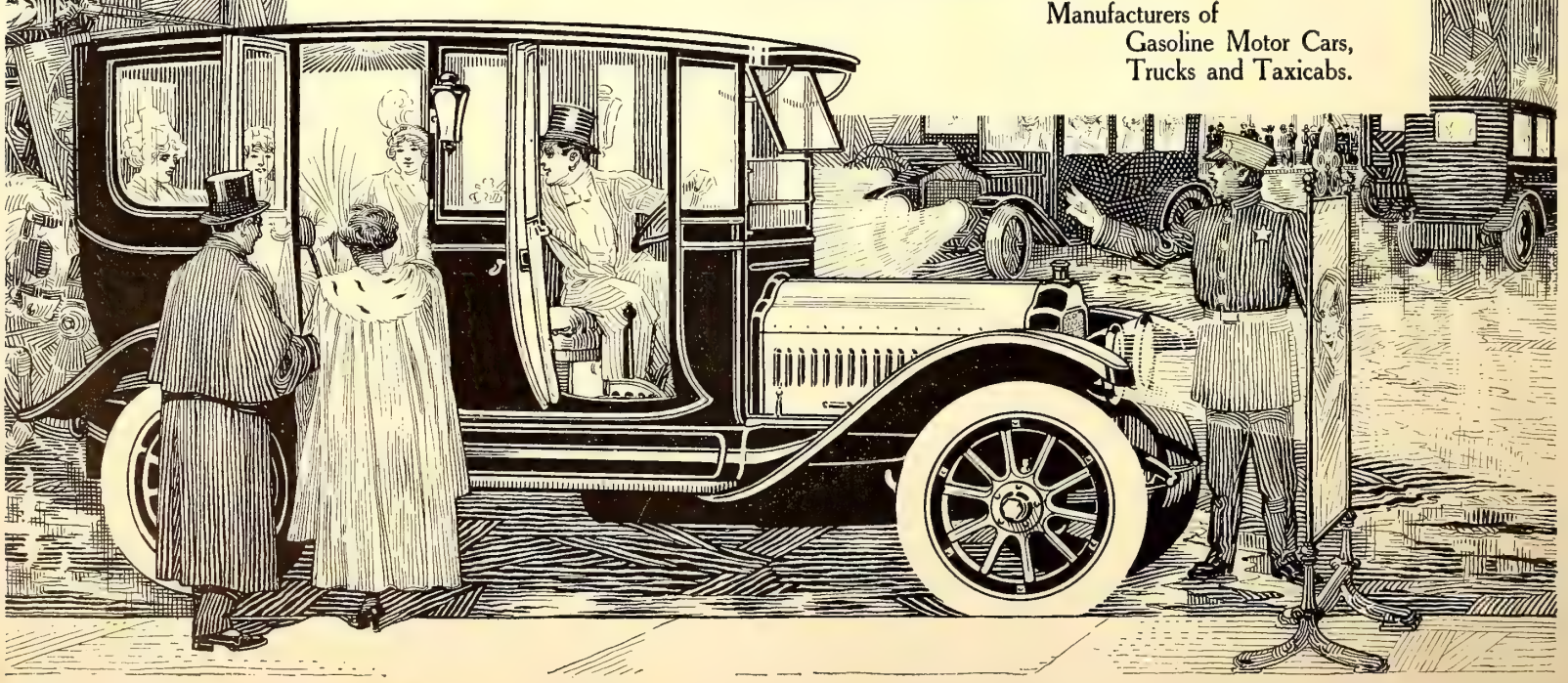

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FEEDING FOR WINTER EGGS

By E. I. FARRINGTON

THE singing hen is the hen that lays. And the singing hen is the happy, contented, busy hen. Given a dry, wind-proof house, with plenty of fresh air and sunshine, the mental condition of the hen will depend largely upon what she is fed, and how. Judging from her actions, a hen lives to eat, but from her owner's point of view, she eats to lay. The question of feeding, then, is of the greatest importance when Winter eggs are the aim.

It must be assumed that the flock is made up of well-matured pullets which have been carefully grown, or else of hens not over two years old. There are no feeding formulas which will extract eggs from hens which are in no condition to produce eggs.

Hens like variety. Moreover, they differ in their tastes. Monotony in diet is sure to result in a smaller consumption of food, while the object of the feeder is to make the birds eat as much as he can. The more food swallowed, the greater the egg crop, provided other conditions are right and that the food is eaten with zest. The standard poultry grains are wheat, oats and corn, but it is highly desirable to add a litle Kaffir corn, millet seed, barley and sunflower seed as appetizers. A tested and satisfactory combination for a regular Winter feed consists of three pounds of wheat, two pounds of corn, one pound of oats and one-half pound of buckwheat. This latter grain, which is heating, is to be given only in Winter.

Now if these grains are set before the fowls in pans, either mixed or separately, where the hens may eat as much as they like at any time, they will consume less than they will if the ration is buried in a deep litter so that they will be forced to hunt for it. There are other reasons why litter feeding is very desirable. Exercise is imperative and there is no better way for the hen to take it than in feeding herself. It is the way Nature intended her to take it and the way which appeals most strongly to her instinct. By scratching in the litter all day, she keeps herself warm even in the coldest weather and in an open-front house. And instead of stuffing her crop periodically and then waiting until it is empty to repeat the operation, she keeps it partly filled all the time, which is the natural way and the way she would do if she were roaming the fields under a midsummer sun.

The litter itself should be at least six inches deep and preferably of rye straw, more of which should be added from time to time until it is soiled and broken into bits, when it should be removed. Leaves make fair litter, but pack quickly and need to be loosened frequently with a fork. Chopped cornstalks make a litter which the hens like, for parts of the stalks will be edible. Clover chaff contains seeds of which the hens are fond. The depth of the litter must be made to depend upon the kind of birds kept. Leghorns are not able to work in litter as deep as that which will furnish the heavier Plymouth Rocks just the right amount of exercise. If the litter

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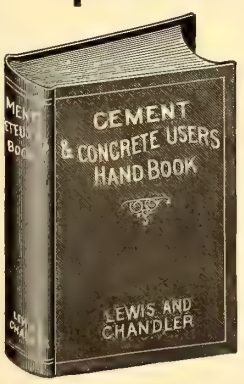

THIS is a concise treatise on the principles and methods employed in the manufacture and use of concrete in all classes of modern work. The author has brought together in this work, all the salient matter of interest to the users of concrete and its many diversified products. The matter is presented in logical and systematic order, clearly written, fully illustrated and free from involved mathematics. Everything of value to the concrete user is given. It is a standard work of reference covering the various uses of concrete, both plain and reinforced. Following is a list of the chapters, which will give an idea of the scope of the book and its thorough treatment of the subject:

I. Historical Development of the Uses of Cement and Concrete. II. Glossary of Terms Employed in Cement and Concrete Work. III. Kinds of Cement Employed in Construction. IV. Limes, Ordinary and Hydraulic. V. Lime Plasters. VI. Natural Cements. VII. Portland Cement. VIII. Inspection and Testing. IX. Adulteration; or Foreign Substances in Cement. X. Sand, Gravel, and Broken Stone. XI. Mortar. XII. Grout. XIII. Concrete (Plain). XIV. Concrete (Reinforced). XV. Methods and Kinds of Reinforcements. XVI. Forms for Plain and Reinforced Concrete. XVII. Concrete Blocks. XVIII. Artificial Stone. XIX. Concrete Tiles. XX. Concrete Pipes and Conduits. XXI. Concrete Piles. XXII. Concrete Buildings. XXIII. Concrete in Water Works. XXIV. Concrete in Sewer Works. XXV. Concrete in Highway Construction. XXVI. Concrete Retaining Walls. XXVII. Concrete Arches and Abutments. XXVIII. Concrete in Subway and Tunnels. XXIX. Concrete in Bridge Work. XXX. Concrete in Docks and Wharves. XXXI. Concrete Construction Under Water. XXXII. Concrete on the Farm. XXXIII. Concrete Chimneys. XXXIV. Concrete for Ornamentation. XXXV. Concrete Mausoleums and Miscellaneous Uses. XXXVI. Inspection for Concrete Work. XXXVII. Waterproofing Concrete Work. XXXVIII. Coloring and Painting Concrete Work. XXXIX. Method for Finishing Concrete Surfaces. XL. Specifications and Estimates for Concrete Work.

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is too deep for the fowls, much of the grain will be wasted.

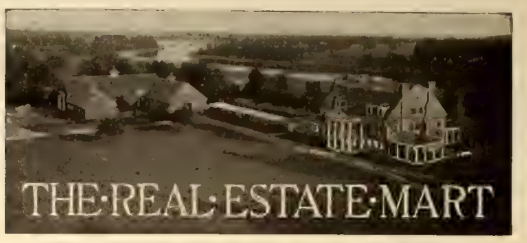
There are two ways of feeding grain in litter and the one to be adopted is the one which appeals to the man who is going to do the work. In one case, the grain is mixed and scattered in the litter once a day, preferably in the afternoon, and if necessary forked into the straw so that all of it will be covered. This is the easiest method, and when followed, the fowls are never led to expect a regular feeding hour, but are sure of finding food in the litter any time they are willing to scratch for it. The feeder must make sure that his hens are getting enough, which is easily ascertained by opening up the litter to see if grain can be found at the bottom and by feeling of the crops of the fowls after they have gone to roost.

The other plan is to feed a mixture of oats, wheat and buckwheat (in the proportions given above) in the morning and a ration of corn at night, working the former into the litter, but throwing the corn on top, so that the birds can clean it up promptly and go to roost with a full crop. Whichever plan is followed, the "extras" like millet and sunflower seeds may be scattered in the litter at occasional intervals.

Along with the ration of whole or ground grain should go a mash, to be fed either wet or dry. Dry mash is now in very general use, because it is easy to feed, while giving excellent results, although it has been pretty well established that a wet mash will induce the production of a few more eggs. A satisfactory dry mash may be made with the following ingredients: Twelve pounds of corn meal, six pounds of wheat bran, twelve pounds of wheat middlings, ten pounds of beef scraps, two pounds of oil meal and four pounds of alfalfa. This mixture should be kept in a hopper before the birds at all times. Some good poultry keepers feed a mash consisting only of bran with ten per cent. of beef scraps added. Others find it easier and not much more expensive to buy a ready-mixed mash at the poultry supply stores.

Table scraps may be chopped into small pieces or run through a meat grinder and mixed with bran and water so as to make a mash which will crumble in the hand. Such a mash fed perhaps three times a week will do much to stimulate the appetites of the birds and to keep them in good spirits. It is a mistake to throw a lot of table scraps into the pen or yard without knowing whether the hens will eat them or not. They make dirty houses. It is an excellent plan to keep a kettle simmering on the back of the kitchen range and to throw into it such scraps as may be fit for the poultry. The mash may be fed to advantage about two hours before dusk falls. After they have finished it, the birds will still be able to eat considerable corn before they go to roost.

It is of great importance that the hens have an abundance of green food, and yet they should not be allowed to make a full meal on it, or they will eat too little grain. Mangels, cabbages, dried lawn clippings, cut clover which has been placed in a pail of hot water and allowed to steam for an hour or two, and sprouted oats help to constitute a complete bill of fare. Mangels may be spiked to a board after being cut in halves, cabbages suspended from strings and lawn clippings rolled up in a two-inch-mesh poultry netting hung to a nail on the wall, to prevent waste. The latter plan is a good one, and is recommended to amateurs who have been far-sighted enough to save the valuable clippings from the lawn. The netting is laid on the ground, clippings placed



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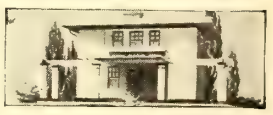

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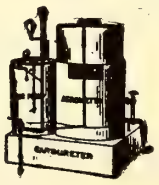

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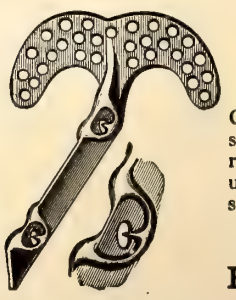

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on it to the depth of an inch and the wire then rolled into a tube, with the contents easily reached.

Cabbage should be fed in moderation, for it does not improve the flavor of the eggs. Few people realize to what an extent an egg is affected by the food which the hen eats. A western state college tried feeding coal-tar dyes to a flock of hens as an experiment. Within a day or two the eggs laid by these hens began to show strange and vivid hues, the yolks being red and the whites pink. Another college fed strong cheese, and no difficulty was found in identifying by the odor, the eggs from the flock which dined on this highly perfumed ration.

It is important to know which hens are laying in order that the drones may be weeded out, and yet few amateurs want to bother with trap nests. With the theory that the laying hen is always and necessarily must be a heavy eater to work on, the poultry keeper can improve his flock not a little by going into the hen house after dark and gently feeling the crops of the birds while they are on the perches. A leg band may be placed on the legs of the hens which have almost empty crops and a second visit made a few nights later, with a third soon after. If the banded bird continues to show an empty crop, the owner may feel reasonably sure that she is not laying and, if he is wise, will permit her to grace the dining table in the form of a roast. With a well-selected flock, well-housed, the simple feeding methods outlined here may be depended upon to bring Winter eggs.

RECLAIMING THE MEADOWS OF NEW JERSEY

THE members of the American Peat Society, which recently held its annual convention in New York city, visited the Jersey meadows where they inspected several hundred acres of peat bog that are being reclaimed and cultivated. After eight years of development some two hundred acres are yielding, in lettuce and onions, from 600 to 1,000 bushels per acre, while the yield of celery is said to average about 3,000 dozen per acre. The results obtained in this locality should prove a great stimulus in similar work of reclamation on valuable but undeveloped bog lands throughout the country. Indeed there are few problems in land conservation more interesting to the student than that of reclaiming swamp and meadow lands.

EASTER ISLAND'S UNKNOWN RACE

EASTER Island, lying 2,000 miles west of the South American Coast, in the South Pacific Ocean, has been, ever since its discovery by Europeans, a most interesting archæological puzzle on account of its colossal stone statues, ruined stone houses, and other remains of an unknown race. *Petermanns Mitteilungen* reports that a fresh attempt to solve the mystery of these remains has been undertaken by an English sportsman, W. Scoresby Routledge, who is proceeding to the island on a motor yacht, accompanied by a geologist and an archæologist from the British Museum.

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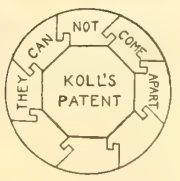

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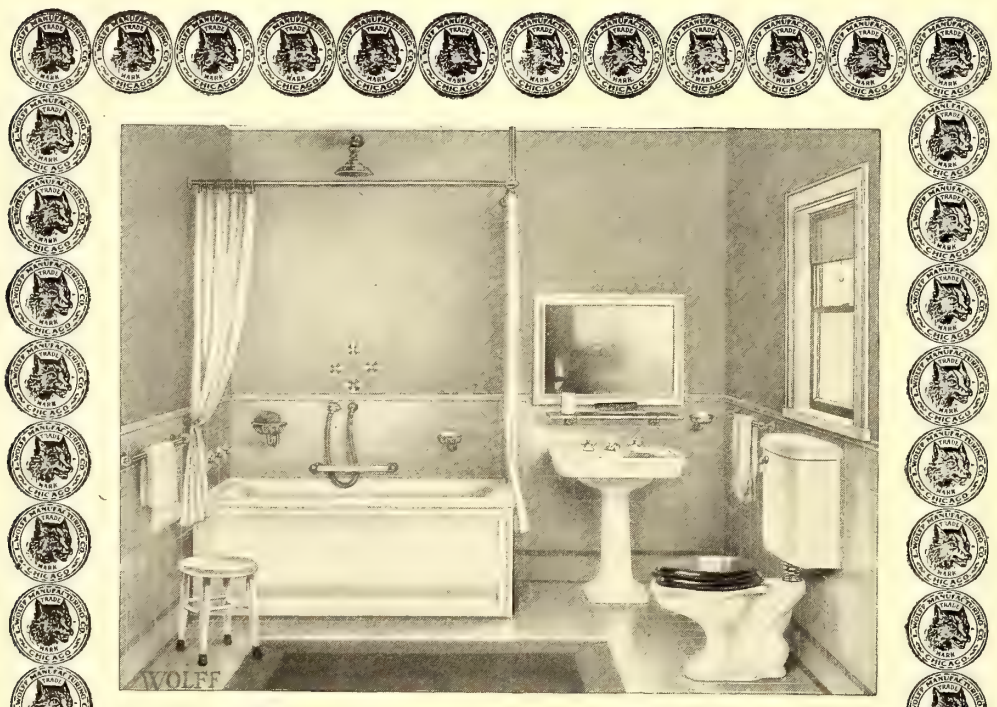

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DYING FRUIT TREES

BECAUSE many fruit trees have been dying in various parts of States in the middle West this Spring and Summer, repeated inquiries as to the cause have been received by the departments of plant pathology of the colleges of agriculture of some of these States, particularly by that of the University of Wisconsin.

Apples, and especially yellow transparent and the transcendent crab, are attacked the worst, although pears, cherries and other fruits show similar symptoms.

Investigations show that the trouble is due to two distinct causes. Considerable fire blight is found upon apples and pears in many sections of the State. This shows either as a blossom blight or as a blighting of young shoots. It is caused by bacteria and is spread largely by insects. Spraying is useless except as it helps to control the insects. The only remedy is to remove promptly all blighted parts and burn them, using precautions so as not to spread the disease by pruning tools.

The other trouble, Winter injury, was caused by the very severe injury following the long growing Autumn of last year. Where the roots were injured the entire top is weakened or dead. In many cases the trunks or certain of the larger limbs near the crotches are dead. It is impossible to save the parts affected, and since the weather cannot be controlled the best way to avoid further Winter injury will be to use cover crops judiciously.

REMOVING GRASS FROM GARDEN PATHS

THE growth of grass in the interstices between flagstones of garden paths may be prevented, says *Pharmazeutische Zeitung,* by repeatedly sprinkling the pavement with a five per cent solution of the very cheap, crude, dry chloride of calcium or crude chloride of magnesium. Also the lye of potash works is said to give good results for this purpose. By others, sprinkling with boiling hot water is given as a good remedy. Furthermore, gas liquor, rock salt, hydrochloric acid, sulphuric acid and fresh milk of lime are also recommended.

THE "HALF MOON" IN THE HUDSON

THOSE who are interested in historical relics will be glad to learn that the "Half Moon," which was presented to this country by Holland during the Hudson-Fulton celebration, has been given a permanent anchorage opposite Yonkers, New York, in the Hudson River. The little craft has been thoroughly overhauled and put in first-class condition; and it is sincerely to be hoped that this most interesting vessel will continue to receive the constant care which its intrinsic value as a faithful replica of Hudson's ship and as a gift from a friendly government, demands.

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AT an exhibition of works of art, at present being held in St. Petersburg, there may be seen a set of porcelain dishes which is considered the most costly in the world. It consists of thirty-six hand-colored plates. This set has an estimated value of 36,000 rubles ($18,540), a single plate, therefore, being worth 1,000 rubles ($515). It is the property of Count Orloff-Davidoff.

THE BUNGALOW

By EDWARD FESSER

OWING to the great activity of the average urban American whose industrial or professional pursuits carry him into commerce or the arts with the intense energy common only to the inhabitants of this country, he finds that during a few months of the year he must seek complete relaxation. There are a few of these having nomadic tendencies who may search for rest only by constant travel to divert the mind, but the great bulk of hard-worked people prefer a little nook somewhere in the woods or on the seashore which they may call their own. Thus we find the tendency becoming more and more prevalent as time goes on, for the city man to have his Summer home as well as one in town. At first only the very rich could afford this luxury, but now it is no uncommon thing for a man to own his shack, or his cabin or his bungalow, be it in the wooded suburbs or at a distance far from home. This very fact has caused a confusion in the architectural term which he will apply to his dwelling so long as it is simply or rustically built or situated somewhere in the woods or by the sea, but the chances are that he will call it a "bungalow" no matter if it be three stories high with a tile roof or an old barn ingeniously converted into a Summer home. The word "bungalow" is distinctly an Anglo-Indian word whose origin is somewhat clouded in mystery, but the best authorities agree that it is an Anglisized corruption of the Hindustani word "Bangla" which is understood to be identical with the adjective of the same form meaning literally, "belonging to Bengal." Although it is difficult to associate the definition of the word Bangla with the common type of building known in India as the bungalow, it may simplify the mystery somewhat, by perusing various records where the word is mentioned, that it has passed through many stages of evolution until the present day. Thus we find from records in the India office in England an extract from the diary of one "Streynsham" who was in the employ of the British Government at the time under date of November 25, 1676. "It was thought fitt . . . to sett up Bungales or hovells . . . for all such English in the company's service as belong to their sloopes or vessells," but it remained for Mrs. Sherwood in her "Lady of the Manor" (1847) to give us the true definition of the Indian bungalow as it is understood to-day. "The bungalows in India . . . are of one story, and for the most part built of unbaked bricks and covered with thatch having in the center a hall . . . the whole being encompassed by an open verandah." Bungalows which are the residences of Europeans are of all sizes and styles according to the taste and wealth of the owner. There is only one story to these bungalows. Each has a central hall and is invariably surrounded by a veranda, the roof of which affords shelter from the sun. In the chief cities of India some of the bungalows are really palatial residences, while in the country they are of more moderate pretentions. In general they are provided with exterior offices to accommodate the large retinue of domestics common in Indian life. Besides these private bungalows there are military bungalows built on a large scale for use in accommodating soldiers in cantonments, likewise "dak-bungalows" or public bungalows maintained by the government for the accommodation of travelers, in which seem to be blended the char-

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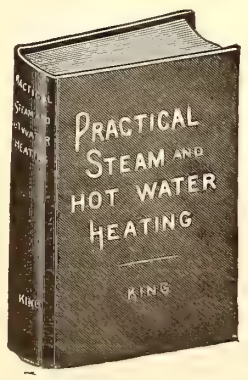

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acteristics of an English roadside-inn and an eastern caravansary. These bungalows are quadrangular in shape, one story in height, and with high peaked roofs, thatched or tiled, projecting so as to form porticos or verandas. They are divided into suites of two, three or four rooms provided with bedsteads, table and chairs, windows of glass and framed glass doors. Off of each room is a bathroom and earthen jars of cool water. Travelers are expected to care for their servants and to carry food-cooking utensils, wine, beer, bedding, etc. The government charges each traveler one rupee (about forty cents) per day for the use of the bungalow, but the "khitmutgar" or custodian of the better class of bungalows supplies tableware, condiments and even sometimes food and liquors and he is usually skilled in cooking. Natives seldom stop at the dak-bungalows but frequent the squalid village "dhurrumsala." At every traveler's bungalow is stationed a government peon who acts as watchman and is bound to assist the servants of travelers in procuring supplies of fuel and food in the nearest village. The distance between these dak-bungalows on a trunk-road is generally about twelve to fifteen miles—an Indian day's journey. In America the word bungalow has an entirely different significance. The eastern or Atlantic coast idea of the word embraces a catalogue of buildings too numerous to mention, but the general acceptance of the term implies a low building of fragile construction designed to be occupied only for a few Summer months. This building may be modified according to the means and taste of the owner. If the surroundings are suitable—such as an island in one of the numerous lakes of the Adirondacks, a three-story dwelling with ten to twenty rooms, all modern improvements, including bathroom and plumbing, a gas plant on the premises, a French chef, with a retinue of servants and a dinner of eight courses—does not prevent the owner from calling his mansion a bungalow. The man of lesser means builds a rustic cottage with slabs on the outside to resemble hand-hewn logs, a large central living-room, Navajo blankets and other fabrics and crafts of the red man are strewn about to give that informal charm to it which would be bizarre in the city—but it always has the second story and the attic. He calls his place a bungalow, and so on down the scale from the so-called "camps" to the one-room log-cabin built by an Adirondack guide for the benefit of his patrons during the fishing or shooting season, if the fancy takes him the owner calls his place a bungalow.

In the West, however, the word bungalow means something different. Owing to the climatic conditions of middle and southern California where an even temperature permits the inhabitants to lead an open-air life through the major portion of the year, the bungalow has a more serious significance to the householder than it has to his brother of the East. It is becoming a fixed type elaborated or simplified according to the taste of the owner. The California bungalow being built for permanent occupation by people for whom the name has a sort of charm and being permanently occupied, it naturally assumes individual characteristics although a uniform architectural standard is maintained. Of late years it has gained a long lead in popularity over all classes of dwellings in this climatic paradise. Bungalows showing great architectural beauty are as frequently seen in the town

with paved streets and suburban villas as they are in the country, the seashore or the woods. In fact some of the most talented architects of the Golden State are now devoting their attention almost exclusively to this distinctly California creation. In the main the architect adheres to the principles upon which the bungalow of India maintains its type—namely, a one-story building. With this standard as a basis upon which to work he uses all his ingenuity in his creations to combine architectural beauty with space and comfort in this country where economic conditions favor comparatively inexpensive construction.

GROWING GOOD FERN BALLS

WHEN fern balls are really well grown, they are highly attractive, but the half-naked balls commonly seen are far from being objects of beauty. And yet success is easily won. In the first place, they should never be exposed to the direct rays of the sun. When the ball is to be started into growth, it should be immersed in water for several hours and then hung in a warm room, but not in a sunny window. Many people make their mistake at this point. The bath should be repeated every other day until growth has started, after which the ball must be watered frequently enough to prevent its ever becoming dry. The more rapid and luxuriant the growth, the more water will be needed. The best plan is to soak the plant in a pail or tub until it becomes too large for such treatment, after which time water must be poured upon it when needed until it is thoroughly soaked.

Water alone will often ensure a thrifty specimen, but better results are secured by using a weak solution of liquid manure. A cheesecloth bag may be filled with horse or poultry manure and allowed to remain in a pail of water until the latter is highly colored. When the fern ball is soaked in this water it will develop with amazing rapidity.

From one to four weeks are required to get a fern ball well started, and it may be dried off at any time, when it can be put away and will remain dormant until water is again applied. Some growers advocate burying the balls in the ground for three or four weeks before they are started into growth, but this plan cannot well be practiced with new balls, as they do not arrive in this country from Japan until December.

A pretty way to use a fern ball is to cut it in half and place each half, flat side down, in a fern dish. Each half should be treated in the manner already described and when matured, will make an excellent center piece for the dining table. These fern balls are not easily affected by house conditions and require less care than the dainty ferns ordinarily used on the dining table.

It is interesting to learn how these balls are made. The Japanese gather a special variety of ferns, the roots of which are made up with sphagnum moss into compact, elliptical balls, held in place by tough string.

Sometimes the strings rot away after a time, in which case a little cage may be made by means of a few fine wires, which will hold the ball and its mass of delicate emerald fronds in place. The dormant balls cost only a little—from twenty-five to thirty cents—and the best time to buy them is early in the year.

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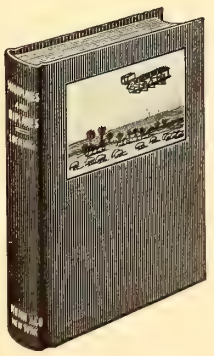

IN the many books that have already been written on aviation, this fascinating subject has been handled largely, either in a very "popular" and more or less incomplete manner, or in an atmosphere of mathematical theory that puzzles beginners, and is often of little value to aviators themselves. There is, consequently, a wide demand for a practical book on the subject—a book treating of the theory only on its direct relation to actual aeroplane design and completely setting forth and discussing the prevailing practices in the construction and operation of these machines. "Monoplanes and Biplanes" is a new and authoritative work that deals with the subject in precisely this manner, and is invaluable to anyone interested in aviation.

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THE MEMORY OF THE ANT

EXPERIMENTS, says *Harper's Weekly,* are continually being made to test the memory of animals, such as the elephant, the dog, the bull; but it would seem a thankless undertaking to ascertain whether the ant has a memory. Nevertheless, a scientist in South America thinks he has succeeded. Isolating two of the largest specimens of tropical ants he could find, he so arranged their receptacle that they could get no food without climbing over a circular slant into another compartment. Over this slant, when the food was not there, he placed a crimson cord, and the ants very soon learned to interpret the signal and never attempted to climb over it. Thinking, after a time, that there might be something in the color that repelled them automatically, as the bull is affected unpleasantly by red, he replaced the red cord by cords of varying colors, always with the same result after the ants had made a few excursions over the slant and come back hungry. Then he tried plain cloth and even paper, but the result was invariably the same. After a number of trials the ants refused to climb the slant when there was any sort of "signal." Finally the scientist reversed the signal, having food beyond the slant only when it was visible; and after an infinite number of trials the ants accommodated themselves to the change.

SOME parts of the desert in California and Arizona which are suitable for the cultivation of the date palm have the one drawback, that the natural heat cannot be depended upon to bring the fruit to perfect ripeness. Some years will result in large marketable crops, while others will yield little because of insufficient heat. To eliminate this uncertainty, Prof. George Freeman of the Agricultural Experiment Station, University of Arizona, has invented a device which will ripen the fruit artificially to perfection. It is exceedingly simple and inexpensive, a fact which makes it commercially available. In fact, it has been used already on a commercial scale, as 100 pounds can be treated at one time in his laboratoy. The device consists of a metal oven, in which dates are placed, after being picked when they just begin to ripen. A preliminary washing is needful, after which they are kept in an even temperature of about 50 deg. Cent. (122 deg. Fahr.) for three days and in a moist atmosphere. This renders them as sweet and delicate in flavor as the naturally ripened fruit, and far superior as a table delicacy to the dried and pressed dates with which we are familiar. The process is also used to restore dates which have remained upon the tree until withered. The moisture brings back their plumpness and flavor, while their wholesome qualities are not impaired.

Ripe dates treated in this way are boxed like choice confectionery. They will stand shipment to all parts of the United States and Europe, as experimental consignments have shown. The industry is growing rapidly in the southwest and promises to become of importance.

COFFEE WITHOUT CAFFEIN

THE American consul at Tamatave, Madagascar, has sent to the Bureau of Manufactures in Washington samples and photographs of a natural caffein-less coffee growing in that island. It is locally known as "mantaska" or café sauvage," grows to a height of twelve to twenty feet, and resembles the ordinary coffee tree, but has smaller leaves and a yellowish berry.

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THE EDITOR'S NOTEBOOK

THE DECEMBER NUMBER

THE December number of AMERICAN HOMES AND GARDENS will mark the completion of the ninth volume of this magazine, and the issue will be replete with articles sustaining the high standard which has made AMERICAN HOMES AND GARDENS unsurpassed in its field. It also stands the foremost magazine of its class in the matter of illustrations, and the continued interest of its own friends augmented by the many new friends the magazine has made during the past year has been a source of gratification to the Editor and to the publishers.

THE opening article of the December number will describe a beautiful Pennsylvania country house, one of unusual arrangement, design and picturesqueness. Such houses as the one which will be described in this article and in other articles in this issue, are in themselves sufficient to refute the statement recently attributed to Lord Claude John Hamilton, M.P., which was reported by a New York newspaper to be as follows:

"Even in the country where there are no skyscrapers and apartment houses, house after house is stuck in the middle of a lot just like so many boxes. There are no trellised fences, no gardens—not the slightest attempt to make the place attractive and beautiful. Why don't you wake up to the sense of beauty and of the great outdoors? You would live longer and be far happier and healthier. America seems to lack this artistic, domestic sense."

IT IS hardly probable that the author of the above statement has had the good fortune to be entertained in the home sections of the cities and country-side of America. However just, some years ago may have been the world's reproach to us for the unhappy period of our architecture at that time, an architecture founded upon the deplorable styles of the Victorian era, we have ever been a nation of home-makers, even when we were engaged in developing some new section of the country. It is true that throughout the entire length and breadth of America our rural districts are lacking in the charm that enters the English landscape, and which appeals to our sense of the picturesque. There is something about the thatched roof cottages, the cobblestone huts and the half-timber houses of Great Britain, of the châlets of Switzerland and of the stucco houses of the Latin countries which is to be missed in the rural architecture of America, and it is also true that in certain sections of our country the interiors of our farmhouses receive the keynote of their atmosphere from marble-top tables and haircloth sofas. However, these instances are in no way representative of American homes in general.

THIS magazine has, at all times, found ample material for its pages, and if each number were to be increased to a thousand pages in size, the Editor believes there would be no difficulty in obtaining for each and every one of its issues, illustrations and descriptions of American homes as truly homelike as those of any other country in the world. It may be that there is some quarrel to be had with our landscape, inasmuch as we have not been forced to give it the intensive cultivation which more limited territory would make necessary, and it must be admitted that landscape is, in a sense, a part of the home. However, long ago, we ceased to neglect the home landscape, and although our gardens may be younger and newer, we have, if we leave out of consideration such spectacular features as thousand year old trees, yews groaning with their ancestery, box hedges that may have framed the labyrinths of Queen Elizabeth's time, gardens nowadays that are as delectable as any to be found the world over. The Editor does not consider a defence of American home-making necessary, but as many copies of the magazine go to foreign readers who may have seen the statement credited to Lord Claude John Hamilton, this word anent the subject may be permitted to affirm the existence of the home-making spirit of Americans for which each number of AMERICAN HOMES AND GARDENS may stand in confirmation.

THE December number will contain a description of a delightful forest bungalow in Vermont, an ideal bachelor home. This article will be followed by one on "Antique Ship Models," in which the writer has described interesting models of the sort which have been placed in public buildings and in private houses from very early times. This, as well as each of the other articles in this issue, will be beautifully illustrated from half-tones from photographs specially taken for AMERICAN HOMES AND GARDENS. One often comes across descriptions of remodeled houses, but the December number of the magazine will contain an article on an old washhouse in New York which was artistically transformed into a studio by a clever artist. The center page feature of the December number will concern itself with the subject of "Exterior Aspects of Chimneys."

AN attractive concrete house will be described and accompanied by floor plans and an authoritative article on mushrooms and mushroom culture will shed much light on this interesting phase of home gardening. An article on "Domestic Rugs" will show the reader what is being done by domestic manufacturers of rugs in competition with Oriental rug-makers. This article will be especially noteworthy and its illustrations will give the reader an adequate idea of the advance in the making of domestic rugs in the last few years. The usual departments "Within the House," "Around the Garden" and "Helps to the Housewife" will be continued in the December number, which will contain, in addition to the features mentioned, other articles of value and interest, including one on "Feeding for Winter Eggs," by E. I. Farrington.

BEAUTIFYING STATE PROPERTIES

WITH the hope of making each State institution an example of scientific care and beauty for the surrounding country, Dennis McCarthy, Fiscal Supervisor of State Charities, is coöperating with the department of rural art of Cornell University in plans to beautify the grounds of the institutions in his department. This is a step forward in the right direction. With State interest in such matters civic betterment societies will have precedent before them in their more local endeavors, and the cities and towns throughout the country will become more fit localities for the American home, its adornment and surroundings.

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AMERICAN HOMES AND GARDENS

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Feeding for Winter Eggs — New Books — The Editor's Notebook

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MUNN & CO., Inc.
Publishers
361 Broadway, New York

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Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

Copyright 1912 by Munn & Co., Inc. Registered in United States Patent Office. Entered as second-class matter June 15, 1905, at the Post Office at New York, N. Y., under the Act of Congress of March 3, 1879. The Editor will be pleased to consider all contributions, but "American Homes and Gardens" will not hold itself responsible for manuscripts and photographs submitted

November cannot make us forget the loveliness of our Summer gardens; rather it reminds us to begin our garden plans for the year to come

AMERICAN HOMES AND GARDENS

Volume IX November, 1912 Number 11

A Country Home at Tuxedo Park

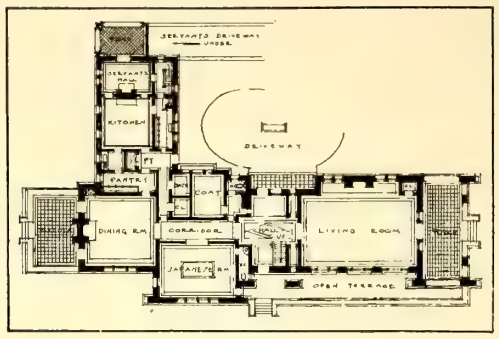
By Morrison M. Andrews

THE road which winds among the Ramapo Mountains, at the point in New York, where they spread from Rockland County across the line into Orange County, leads through a region wild and rugged with much vegetation and very heavily wooded. Not far from the county line the road leads past the ivy-covered stone lodge such as marks the entrances to great country estates in England. A few picturesque cottages are grouped about and through the gateway there appear glimpses of roofs and chimneys, winding roads, the glimmer of water and dense forest. This is Tuxedo Park, perhaps the most

The living-room end of the house opens out upon a spacious porch

beautiful and exclusive country colony in America.

It appears to be the work of ages past for the gray stone is covered in places with mosses and lichens, and the vines which screen the walls seem to be the result of years of growth and training, but Tuxedo Park is new and its planning and development from a tract of virgin forest were the work of less than one brief year, the results of the efforts of an architectural genius with unlimited wealth at his command. The story of the molding of this wonderful place is a history in itself—the idea formed by the late Mr. Pierre Lorillard assuming definite shape under the skilful direction of Mr. Bruce Price who guided its laying out, solved the problems involved, and designed and built many of the earlier estates of which it is composed. Suburbs are planned for the building of houses of almost every description. Many are designed for the smallest and simplest of cottages, others for homes of greater extent and cost, and the funds of one vast foundation are now being applied to the building of tasteful homes for people of moderate means. Upon the other hand, Tuxedo Park, which may be considered a suburb, seems to be planned chiefly for the socially and financially prominent, and most of the homes built within its gates are of considerable extent and importance. The road which enters the gateway is broad and smooth and leads over the hills and through the dales of this beautiful spot, and one finds that Tuxedo Park is a settlement of country estates grouped together, where the families who inhabit them are members of the Tuxedo Club, all sharing in the activities, which, Summer and Winter alike, center about the club-house, the lake and the ivy-clad stone church which is placed not far from the park gates. Among these beautiful country homes stands "Sho-chiku-bai" designed and built by Messrs. Walker & Gillette, architects, New York, and a strikingly successful example of a country house planned with direct reference to the spot where it is placed. It is an architectural axiom that a house is most completely satisfying when built of some material native to the locality. Obedience to an architectural law is not often as literal as in the case under discussion, for here, built in the heart of the woods, is a home constituted very largely of the same rough gray stone which forms the foundation of the everlasting hills spread out upon every side.



First floor plan

As one approaches this beautiful home through the grounds which surround the house, it seems to be in a very intimate way an integral part of the country setting. Spread out as it is over a considerable space and, being but two stories high, the house is quaint and rambling and from the long low building which forms the main structure an extensive wing extends at a right angle and adds very materially to the size and unusual picturesqueness of the house. The first floor walls and the chimneys are of the rough gray stone quarried near by and laid in somewhat the manner of "cobblestones." This very free and informal treatment is made even more interesting by the vegetation which in some places still adheres

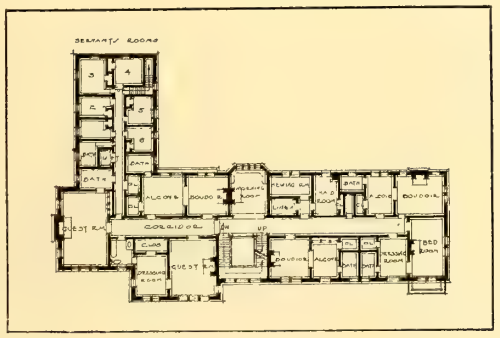
The drawing-room

The dining-room

to the stone. The low roof, broken by many dormers, is of stained shingles and the walls of the upper floor are finished in "half timber" where panels of rough cast stucco are framed in by bands and cerebels of wood stained a color which ties the golden brown of the stucco to the rough gray of the stone walls of the floor below.

The quaintness of this home in the woods is emphasized by various balconies and projections supported upon timbers of stained wood. Their tendency of course is to broaden the already marked horizontal lines of the building and to increase the spreading and rambling effect which is so interesting. The appearance of this very large but delightfully rural and informal country home set in the forest, is one of unusual interest and beauty at whichever way it may be approached.

The guest arrives at "Sho-chiku-bai" before the main entrance which is recessed a few feet within the heavy stone walls and reached by a few steps and a platform of brick laid upon edge. The small hallway within contains the main stairway, and close at hand are the coat rooms which are convenient for guests in a country house, particularly in a place like Tuxedo Park, where every form of outdoor life, Summer and Winter, occupies so large a part of the time. At one side, as the spacious house is entered, is a large living-room which might be fairly described as a combination of drawing-room and of library. Here all of the walls are paneled with squares of wood and heavy beams across the ceiling frame in sections of ornamented plaster. A great fireplace lined with brick and set within a massive stone mantel fills in one side of the long room, and bookcases and casement windows reaching to the floor and opening upon terrace and veranda, line other walls. Over the doorway into the hall is hung an antique tapestry, and divans and arm chairs are grouped about reading tables and in the corners of the large room. A wide corridor leads from the entrance-hall to the dining-room where furniture of old English patterns in tables, sideboards and chairs is framed in by high wainscoted walls over which extends a deep frieze. The fireplace here is lined with brick and over a low Tudor arch of stones is placed a mantel, and paneling of wood which creates a background for an old portrait framed in gilt.



Second floor plan

The floor plan provides for two very broad verandas. One broad terrace is placed just outside the windows of the living-room and casements open directly upon the brick flagging, and the space, is made beautiful and inviting with rugs, suitable furniture and the other accessories which belong to a spot which combines the functions of a living-room and open-air lounging-place. Another terrace is reached through the wide French windows of the dining-room, and the special use for this veranda is that of a site where under the vine-laden timbers of a broad Pergola, a Summer morning breakfast may be served or after-dinner coffee lingered over.

The planning of this lower floor is done with a certain stately informality and therefore of particular interest, because so altogether different, is a reception-room furnished

The entrance-hall

in the Japanese manner which faces the corridor leading from the hall to the dining-room. Here the walls and ceilings are covered with Japanese prints and fabrics—the ceiling is decorated in Japanese patterns and carving, lacquer and metal appear in furnishings, and lattices or thin fabrics cover the windows. The use of gold judiciously combined with color, which the Japanese understand so well makes this beautiful room a place of wonderfully subtle harmonies and contrasts.

The long low wing which adds so greatly to the exterior beauty of the house by extending its broad, spreading mass, is arranged in the most complete of service quarters. Close by the main entrance to the house, is a special doorway for trunks, and just within is a baggage lift which makes very easy the handling of the belongings of arriving and departing guests. The greater part of the space upon the lower floor of this part of the house is used for the pantries, sewing-rooms, kitchen and servants'-hall necessary for a large country house and the upper floor is divided into six bedrooms for the use of the servants, and a bathroom for their convenience, all of which are completely apart from the portion of the house designed for the use of the family and guests.

Upon the upper floor arrangements are made for entertaining upon a large scale. Many small suites are planned for guests and most of them include a study or boudoir, a bedroom and a bath. There are also a few very large single rooms, and over the entrance hallway is an informal morning-room with a fireplace and a deep oriel window which overlooks the winding driveway, which approaches the house through the woods.

The furnishing of the numerous little studies and bedrooms of this very beautiful country home is interesting with the beauty of great simplicity. The paint is almost everywhere either white or ivory-colored, and where the walls are not paneled they are covered with the freshest and simplest of fabrics or papers. The color supplied by floor coverings and the chintz or taffeta of curtains and furniture covers, affords a fitting background and setting for mahogany in the form of beds, tables, dressing-stands and chairs, and the freshness and fragrance of out-of-doors is brought within the house by growing plants and bowls and vases of cut flowers.

"Sho-chiku-bai," set as it is within a forest is perpetually interesting with a beauty which changes with the passing seasons. The materials used and the coloring of the exterior which is low in tone have the effect of tying it to its site, and also of bringing it into harmony with the changing setting of nature whether it be the bright green and fresh verdure of Spring and Summer, the myriad reds, browns and yellows of varied Autumn or the mantle of white which makes a Winter in the forests so beautiful and mysterious.

Much of the beauty of this country home in the woods, is due to the skill which has placed in this sylvan setting, a house which seems by every rule of good taste to belong just here and nowhere else. Someone has said that our American country is beautiful only as long as it is left in its natural state, but that with its use as a place of homes comes the utter spoilation of its beauty and charm. This may be due very largely to the disregard for the fitness of things both in designing country homes and in the choice of materials of which they are built, although such disregard is becoming rarer as we understand more fully the laws which govern the successful planning and building of country homes. The charm of a house built of logs or of slabs is largely due to the fact that such a building is generally placed in the woods or in similar surroundings where it seems to be in keeping. In the case of this country house at Tuxedo Park, much of the same idea of suitability has prevailed and the buildings have been cleverly adapted to their site, and use has been made of such materials as blend in easily with the rest of the woodland setting, such as the stone of the lower walls the stained shingles and wood of roofs and walls between the panels of rough cast stucco or plaster which are stained colors and which are repeated in the foliage. Already the walls are being covered with ivy and the various clinging vines which do so much to harmonize a home with its surroundings.

Nowhere else in America has the community idea as applied to country living been so completely and as successfully developed as at Tuxedo Park. The tract of ground within its gates is so vast that control is had of any building operations which might be unsuited to the place. Those who dwell within the boundaries of the estate are members of one large family or colony, and hence interested in all the manifold pursuits which engage the attention of old and young during the entire year. Placed close enough to New York to be in touch with its daily life, and yet far enough away to be far beyond the area of undesirable developments, and in the midst of a wonderfully beautiful and interesting country, Tuxedo Park presents an unusual solution of the problem of country living, the success of which is due in a large degree to the beauty of the individual homes of which it consists.

The homes which make up the Tuxedo colony, as has already been said, are chiefly estates of some extent. Many types of architecture are represented, and there is great variety in the treatment of their surroundings. Some of the estates such as "Sho-chiku-bai" are set within the natural growth of the primeval forest and are approached by roads winding among the trees, while elsewhere there are homes surrounded by formal gardens and broad lawns and upon all sides there are wide and extensive views over lake and

The Japanese-room

hills or low mountains covered with vegetation.

Where so many types of architecture are represented many of the individual homes are of course possessed of much interest and this is particularly true of the several examples which embody much of the interest of the old country homes of England. The wizard of wealth which produced order and beauty from the chase of wild and rugged country has wrought the same work in designing and building the individual homes of which Tuxedo Park is composed. Some of the larger estates patterned after Elizabethan manor houses are surrounded by beautiful and carefully planned terraces and grounds, and furnished with treasures from abroad, and the production within a brief period of the beauty and dignity, which in other countries and other ages, has been the result of centuries of care and cultivation, offer a striking instance of the results of the expenditure of money thoughtfully directed.

Entrance doorway

The wildness and ruggedness of this country is particularly well adapted for the building of such a colony where each estate occupies considerable ground and where the driveways may be made where they seem to belong by all the laws of beauty and good taste. It would have been very difficult to plan here a suburb of the usual type where streets or roadways are arranged upon what might be called the "gridiron" pattern, and where small plots must be uniform in size and rectangular in shape. Here, with much space allotted to each estate, and there being no special arrangement of "lots," it has been possible to plan with wide latitude the residences and such service buildings as surround them. The setting of these homes in a forest where they are separated from one another, and where they are often come upon unexpectedly makes it possible to give to each of them the individuality of treatment required without making the colony the jumble of many types of architectural style, which so many suburban developments unfortunately present. The buildings of each home in Tuxedo Park are framed in and surrounded by the everchanging forest which is, of course, the true setting for a country abode.

Placed amid the rugged hills or mountains of Orange County, Tuxedo Park offers the charm of the wilderness, and yet upon a clear day the skyscrapers of New York are dimly visible. The motor quickly speeding over the hard and smooth roadways makes short the trip from country to town, and the telephone which brings the whole world into close communication makes it possible to live in the wilderness, and yet keep in close and intimate touch with the great world outside, a world made greater by so fine a tie.

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The bed-chambers with dressing-rooms en suite are beautifully fitted with interesting furniture

This house was built by its owner to be in architectural keeping with the Colonial furniture that adorns it

A House Built for Colonial Furnishings

By Mary H. Northend
Photographs by the Author

THERE is a peculiar fascination which few can resist connected with the old-time houses, more particularly those of the seventeenth century. I mean the charm of those dignified square types that came into vogue as prosperity increased in the colonies. The advent of this type of house marked an epoch in the architectural world, which has given it a distinctive place in house-building—in fact, so distinctive that the architect of to-day harks back to those old ancestral homes, finding there features which can be successfully copied in modified Colonial twentieth century homes. It is this artistic intermingling of the old and new that never fails to find favor with the house-builder of to-day.

Perchance much of this style has been brought into favor through the coming into fashion of ancestral furniture, which had for many years been delegated to attic and storehouse. These large, heavy pieces are entirely out of taste as introduced into modern homes which have been designed without thought of Colonial ideas.

Sir Christopher Wren "fathered" many of those old houses, and it is to his wonderful artistic designs that we owe much that is attractive to-day. For it must be taken into consideration that our Colonial forefathers had little chance to study architecture and therefore had to bring into play shrewd common sense, combined with old-time ideas.

The balustrade of the stair in the hall is especially interesting in design

One of the best examples of the modified Colonial house is to be found at Wellesley, Massachusetts, one of the suburbs of Boston. This house was carefully planned, in conjunction with the architect, by Mr. Herbert Gage, for an all-year-around home. The house is especially interesting in having been planned to fit its furniture, rather than the furniture bought to fit the house.

The location is ideal, for the grounds are situated between two parallel streets, giving as it were,

End of the living-room showing built-in-bookcases

The living-room is large, sunny and home-like

an entrance door on either side, and allowing plenty of space for wide lawns and flower beds. It is a distance of sixty feet from the border of the main street to the house, and one hundred and ten feet from the opposite street. Thus the extensive ground affords an opportunity to make the landscape architecture a fitting complement of that of the house itself.

The entrance proper is by a gravel walk, bordered on either side by Rocky Mountain pines. This ends in a Colonial porch with dignified Ionic columns above which is a group of windows with ornamental tops and showing dentels of the old-time type. An innovation has been made at one side by the introduction of an outside chimney of brick, which allows of a wide fireplace in the living-room. Another addition is the glassed-in-veranda which affords a protection in Winter, and is used as an out-of-door living-room in Summer.

At the rear, passing through the gateway, one walks up a path bordered on either side by old-fashioned flowers, the same varieties that grew in our grandmothers' gardens of long ago. This helps to carry out the seventeenth century idea. Here, a wide veranda across the end of the house, while

The dining-room is one of the most successful rooms in the whole house

The kitchen

not in strict accordance with the period, is most attractive, as is also the feature shown in the second story, where large windows open outward and give a cross draught and plenty of light.

Standing as it does in the midst of green lawns and flower beds, with century-old elms casting their shadows over the grounds, it bears out the idea of the old home so much that it is hard to realize that this is not a re-modeled Colonial house, instead of a modified colonial type, built at the present day.

The entrance door opens into a wide hall which extends through the center of the house and ends with another door at the opposite side. This follows the idea of the houses of that period, from which it was designed. The hallway is paneled and painted a soft cream white, a most attractive background for the rich old furniture. At one side of the hall is a fine low-boy, an heirloom, as are all the pieces nearly, that are found in the house. Over this hangs a handsome Chippendale mirror, and opposite is an old grandfather's clock which has marked time for centuries in the family. The staircase starts halfway between the entrance doors and leads by low treads to the second story floor.

As one enters the hallway from the main road, at the left is found the living-room, which differs from those of olden days in that it is one large room, instead of being divided into two rooms. This innovation has been so happily planned that it shows to fine advantage the wonderful old furniture for which this house is so truly distinguished.

There is a quiet restfulness surrounding this particular room, which is most refreshing. The walls have been hung with just the right shade of soft green, and harmonizing with this is a two-toned rug which covers the hardwood floor. This plain surface might be trying if it were not for the successful lighting of the room and the bright coloring of the zaleas in the cretonne hangings.

On the paneled walls of this room is displayed a collection of swords of various periods

The fireplace, which is the central feature of the room, is finished in brick and shows off the beauty of the old-time steeple-top andirons and their accessories. Light, which is the essential feature here, is obtained by the many windows and the glassed-in door which divides the hall and the living-room. At the farther end, built-in bookcases line the wall, broken by a let-in window seat which overlooks the old-fashioned garden.

The dining-room is at the left, the butler's pantry and service apartments adjoining. It is a large and cheerful room, well-designed, showing for features, an interesting corner cupboard and inglenook. The walls are hung with a wonderful landscape paper which is largely of green trees and fountains. This serves a double purpose, being cool in effect during Summer, and in the Winter season, lends itself to the brightening of the room through the soft green of the foliage and the picturesque fountain effects. Ample windows light this room, and the large fireplace with its cheerful wood fire gives additional comfort on a cold or rainy night. Here is found an inglenook that is most attractive, carrying out the idea of the wooden settles on either side of the fireplace so common in all old houses. In the corner is the old cupboard, with its shell pattern. This is an exact reproduction of one that may be found to-day in an old Deerfield home, and forms just the right place to show off the wonderful old china which is supplemented by the pewter chargers and pieces of long ago that stand on the place shelf over the mantel.

All the furniture shows the best makers' design, the

Inglenook fireplace in the dining-room

Chippendale, Dutch and Windsor style being represented by fine examples. Many of these old pieces have interesting histories of their own, aside from their ancestral value. Prominent among them are the old tables. One of them was owned and used by a Surgeon-General ancestor who served in the Revolutionary War, while another at one time did service as a Communion table in a old country

(*Continued on page 403*)

The wall-paper in the dining-room is a Colonial landscape pattern and very beautiful in effect

The old-time bandboxes were various and gorgeous in design, pattern and color and an important adjunct to the wardrobe of yesterday

Bandboxes of Olden Days

By Harriet Gillespie

IT is a pity that the gentle fashion of carrying the pictorial bandbox of Colonial days has, along with much else of fact and fancy, passed away, until, to-day, it is only in some great museum or the treasured collection of an antiquary that these quaint olden time receptacles are to be found. In all the domain of by-gone relics, the bandbox possesses a charm peculiarly its own, a charm quite apart from the fascination peculiar to that of old china or of antique furniture, because it brings with it from the dim and misty past such intimate suggestions of the character and personality of the owner. Like an old silken gown, resurrected from some long forgotten chest, it radiates a sentient vitality that recreates for one a sense of the atmosphere of the past as few other such things can do.

But happily, though it has long since passed from the realm of latter day customs, many beautiful specimens still remain intact in collections to gladden the heart of the art lover and to furnish a golden key to the sartorial fancies of Colonial maids and matrons. One of the most extensive of these collections is that owned by Mr. Alexander W. Drake of New York, comprising some 300 boxes, from which the illustrations accompanying this article are taken.

Two bandboxes in the collection of Mr. A. W. Drake

The importance of the bandbox as an adjunct to the feminine wardrobe of the times contemporary to its vogue can scarcely be over-estimated, since economy of space by fair travelers on pillion or stage coach was a matter of stern necessity, so bandboxes, many and various, filled the place of the modern wardrobe trunk.

It was in the be-flowered bandbox that the belle of 1830 carried her calash, muskmelon hood or poke bonnet, a striking contrast to the smart English hatbox which the girl of to-day includes in her luggage. Within the kindly enclosure of other boxes, kerchiefs, gowns and stays were packed, for the largest of them according to an expert, were the size of a bushel basket.

None of the writers on things Colonial have done more than touched upon the bandboxes of the Eighteenth century. The chroniclers of old time customs and costumes, make but brief mention of their use and few reproductions of photographs of them have been published.

The author of an entertaining volume "The Heritage of Dress" says of bandboxes: "We may pause to recall a simple article which is known as a bandbox which has been diverted from its original purpose of holding bands and is now commonly used as a receptacle for hats. Though not itself a part of dress, the bandbox furnished an interesting instance of adaptation to circumstances. It was well suited to contain articles of dress other than those for which it was primarily intended and hence it has survived in the struggle for existence." Thus one may emphasize the fact that primarily bandboxes were the more or less ornate receivers of the starched ruffles and rich textile bands of gay cavaliers but which receptacles for finery, women later monopolized as suiting more particularly the demands of the feminine wardrobe.

And now, while neither the poke bonnet nor the calash or any other of the dainty "fal-lals" of olden beaux and belles are likely to return to their former mode and favor, their imprint on the fashions of the day remains in the captivating old-fashioned bandbox

Old land-marks have been immortalized by the bandbox

with its gayly flowered wall-paper covering.

Some of the boxes have a distinctly historical value in that they preserve much of the history and romance of the times. Pictorially they faithfully reproduce many familiar land marks in colors which have all the delicacy and charm of old Japanese prints. Though bright, the colors are never crude, for the dyes of vegetable origin, bear little or no resemblance either as to harmony or permanency, to their cheaper and less pleasing aniline prototype to-day.

The "Windmill" bandbox, showing picture of the first railway

Printed from handwrought wood blocks, which impart a firm rich body of color, the method employed is only equalled by the novelty and originality of design. In effect, they compare favorably with the work of the best poster artists to-day, except in the matter of color, for modern commercial art cannot touch the Colonial yellows, the rare ultramarines, the old china pinks or the cool hemlock greens, which spread themselves so charmingly over the expansive surface of the old time bandbox.

Old landmarks which were immortalized by the bandbox chronicle were The First Capitol at Washington, The First Capitol at Albany, Castle Garden—while it was still an island—the old New York Post Office and the New York Deaf and Dumb Asylum. The Eruption of Mt. Vesuvius was the somewhat disturbing subject that aroused one artist to enthusiasm. It bore a resemblance in its soft gray and white coloring to the Washington Memorial paper adopted when all the nation went into mourning for the Father of His Country.

In the windmill and railroad bandbox a model of the first steam train is shown with a "postery" background in which a primitive windmill is prominently displayed. Both the simplicity of treatment and the coloring make the design worthy of the prominent place it now holds framed and hanging on the wall of a collector's library. Among the heroes of the day, Napoleon was a favorite subject for the designer of old-time wall paper, and his return from Moscow is reproduced in spirited fashion while Zachary Taylor in characteristic pose awaits developments on a tented camp ground.

In the same category are lively scenes depicting infantry and cavalry at drill. Of sylvan views there are many showing bosks and dells, Colonial farm houses with primitive surroundings and to contrast with which, there are classic temples, marble fountains, formal gardens and charioteers in gorgeous raiment driving prancing steeds that threaten to leap from their setting in the excitement of their mad career.

At the New York Metropolitan Museum of Art, a charming specimen of bandbox of the year 1800 is to be seen in the Bolles collection and at Van Courtlandt Mansion, Van Courtlandt Park, others have been preserved. It is occasionally in some isolated instance, as in one of a small collection loaned by Mr. Drake to the D. A. R. Museum at the Jumel Mansion that a hint of a maker of bandboxes is obtained. Inside the cover on a label, yellowed with age, there was found printed this legend:—

BANDBOX
MADE BY HANNAH DAVIS,
EAST JAFFREY, N. H.

To the average collector, this tantalizing inscription is sufficient to cause curiosity to run riot for some clue to the identity of Hannah, the maker of bandboxes. And while commonly the result would be only a matter of conjecture, fortunately in this instance, speculation is lost in knowledge. For curiously enough, a little old lady visiting the Museum one day not long since, espied the interesting relics reposing in the bed chamber that once belonged to Madame Jumel.

"Why, those look like Hannah Davis's bandboxes," exclaimed the little woman in amazement.

"So they are," replied the Curator, "let me show you," and suiting the action to the word, he withdrew the cover and held it up for her inspection. Reminiscences of Hannah, the bandbox maker, followed.

"I can see her now," went on the visitor, her eyes brightening at the recollection, "as she used to come to our village with her sleigh piled up with bandboxes. I lived in in the next town and my mother always saved our old newspapers with which to line the boxes."

And even as the reconteur stated the boxes were all neatly lined with newspapers of the date of 1855. A perusal of

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These two bandboxes in the Drake collection are typical specimens of those in general use a century ago

A playhouse upon a large country estate where it agrees in style with the other buildings

Little Houses for Little People

By Robert H. Van Court
Photographs by Jessie Tarbox Beals and others

NOTHING is more absorbing or delightful to children, than the possession of some little place which they may claim as their very own. The home-making instinct is strong even in childhood, the tiniest little house in which to play, even if it be surrounded by a little ground where a garden might be made, would be to most children the happy realization of dreams come true. The idea after all is but the nursery plan carried a step further, and in a perfectly logical direction, for if one room of the house be devoted to the children and their playthings and be considered wholly apart from the rest of the house and subject to a large measure of ex-territorial privilege, the granting of such independence might be made more complete by installing the children in a little playhouse which may be exclusively theirs. The idea was scoffed at a generation ago, but many lessons have been learned within the past twenty years, and much progress has been made in the sympathetic treatment and intelligent understanding of children. The writer knows of but two playhouses which entered into the experiences of his own childhood, and it is interesting to find that both of these simple little playhouses, which were part and parcel of the lives of two little girls, are now fulfilling the same function for a younger generation.

A house to shelter the sand pile

After all, what is more fascinating to the average man or woman than the fitting up of a home? With what pleasure and interest one plans and furnishes a house, apartment or even a modest little habitation made from one or two small rooms! How one enjoys searching the shops for just the one fabric or piece of furniture or china needed to complete a certain effect, and how even the drawbacks to

home-making are forgotten in the increased experience which comes with each difficulty met and overcome! And if men and women are only boys and girls grown tall, the same things which interest mature years may be quite as fascinating in a somewhat different manner and degree, in the years of childhood. Happy is the boy or girl who is given the opportunity of working out these delightful problems in his or her own way.

Let no one suppose that cleverness and ingenuity in home-making belong only to adult men and women. The little playhouses here shown, built in widely different sections of the country, are of many types and styles, and may be supposed to indicate the tastes of the little men and women for whom they have been planned. The keen ingenuity of childhood has developed a few of these little houses from materials which are easily to be had, and no doubt the little wigwam or the nests placed literally among the boughs of trees mean quite as much to their young owners as the beautifully designed and faultlessly built little structures which have been placed in gardens or upon barns of extensive country estates.

Several of the small buildings of which illustrations are given may be said to represent, upon a small scale, the entire history of American home-making. The little birch bark tepee where the children may play, dressed as Indians, represents, of course, the earliest of American homes, the habitations of the Aborigines. Next comes the little cabin built of logs where the children may imagine themselves sturdy pioneers in the wilderness—the advance guard of civilization, disputing every inch of the way with the Indians. Other houses might be said to represent later types of American homes of greater beauty and refinement, and the very charming and complete playhouse shown at the beginning of this article might be said to represent the present day home with its grace and luxury, for it is part of an extensive country estate, and agrees in design and construction with the other buildings upon the place.

A family gathering about the tea table

The smaller picture on page 386 shows a "sand house," and is included in this series, because it represents one phase of the playhouse which is apt to be overlooked. Children love to play in the sand, and here a low wall confines it in place and the roof protects both the children and the sand from the sun and the rain. The little treetop playhouses shown upon page 387 display the work of youthful architects and represent what may be called the "naturalistic school" of playhouse architecture.

Be the playhouse ever so simple, the children will use it to their enjoyment and enter with enthusiasm into its furnishing and arrangement. Such houses, in their simpler forms, are quite inexpensive and their cost is not to be regarded or compared with the enjoyment which their use will af-

These little perches placed literally among the leaves may be said to represent the naturalistic school of playhouse building

The playhouse is patterned to some extent after the residence. The doll's playhouse to the right is a copy of the house for the children

ford. It may be of almost any size. As may be seen from the pictures, some of these attractive little homes in miniature are so tiny that one could scarcely turn around, while others are quite magnificent, but if the playhouse be large enough to allow for romping and pillow-fighting, its use will be ever so much the more enjoyed, and its usefulness will be prolonged many years after dolls have ceased to amuse and tea parties have lost their charm.

If a playhouse is to be built, and if the size of the appropriation permits, by all means have a fireplace or at least some provision for heating during cold weather. This will make the house useful during the long Winter months, when much time must of necessity be spent indoors, and when the independence of the playhouse is most needed to relieve the tedium of enforced confinement.

The danger of fire need not be feared unless the children are very small, and no one has invented a surer way of teaching the value of responsibility than by making boys and girls understand just what responsibility means by actual contact.

Running water should be provided by all means. Its cost need be but a trifle, and it makes possible all kinds of play, for besides sailing navies and transport lines in tubs, water is required for the doll's kitchen and laundry, to say nothing of its use in the toilet of the doll family when their complexions will permit of such primitive methods of cleansing. A playhouse for a boy might very shortly develop into a carpenter shop or a store. One such house at an early stage of its career became a station for the sending and receiving of messages by wireless telegraphy and another was devoted to photography with a dark room and the apparatus for the finishing as well as the taking of pictures. Its use gives a boy a certain sense of responsibility besides making a place for his treasures at many stages of his career—the Noah's Ark and tin street cars of his earlier days, the fishing-rods, balls and bats, and tennis racquets of succeeding days and the guns and fencing foils of another age.

A Winter view of the playhouse veranda

A girl's playhouse might become an amateur cooking school after its original purpose had been served, but as photography it is quite as popular with girls as with boys; a playhouse for a girl might be used very largely for this purpose. Children are wonderfully inventive and the average boy or girl will not fail to find a very definite and specific use for a playhouse and to discover new uses for it as time passes and pleasure in one pastime is lost as newer interests come to the fore.

The most dignified of playhouses

What becomes of playhouses when they have been outgrown by the children for whom they were built? The question is hard to answer for no two cases are quite alike. As has already been said some playhouses are now serving for the dolls and other childhood treasures of a second generation; another playhouse, somewhat en-

larged, is the study and workroom of a woman author for whose use the little structure was built many years ago. A young artist has made a studio of the playhouse of his boyhood days, and before reaching its present stage as a studio it had been used for numerous other purposes as life's horizon widened and new possibilities were presented. In many cases a playhouse built for a child is useful long after the passing of the period for which it was constructed.

If it be possible to give the children a little playhouse do so by all means whether it be the work of a great architect or the simplest little cabin made of a few packing boxes. The effort will be well worth while, and both effort and cost will be repaid one hundred-fold in the value of the lessons in self-reliance and independence which its possession will bring to its little owners. Then there is also the great pleasure of having it, and who would begrudge the simple little sources of happiness which mean so much to children and which make childhood a time of happy days to be held in everlasting remembrance? There are, of course, no definite rules about the building of playhouses and no one has yet invented a style of architecture which can be said to be particularly adapted for such little buildings. Children are naturally imitators of their elders, and their tendency would be to arrange their playhouse as a small model of their own home or some other home which seemed to them particularly interesting. Perhaps the same ease with which they imitate leads them to make playhouse life a small copy of life in reality; and to imitate the actual makeshifts which real experience brings such as might be expected in an Indian's tent or the log cabin home of a hardy pioneer. A children's playhouse is sometimes made a decorative feature of a country place, and very often the playhouse is a model upon a small scale of the home itself. One of the pictures shows an interesting application of this idea, for upon a large country estate at Lake Forest, Illinois, a playhouse for the children has been built in a style somewhat similar to the home itself and close by is a doll's playhouse which is a copy of the children's house. Thus as the children imitate their elders, so the dolls may be said to be imi-

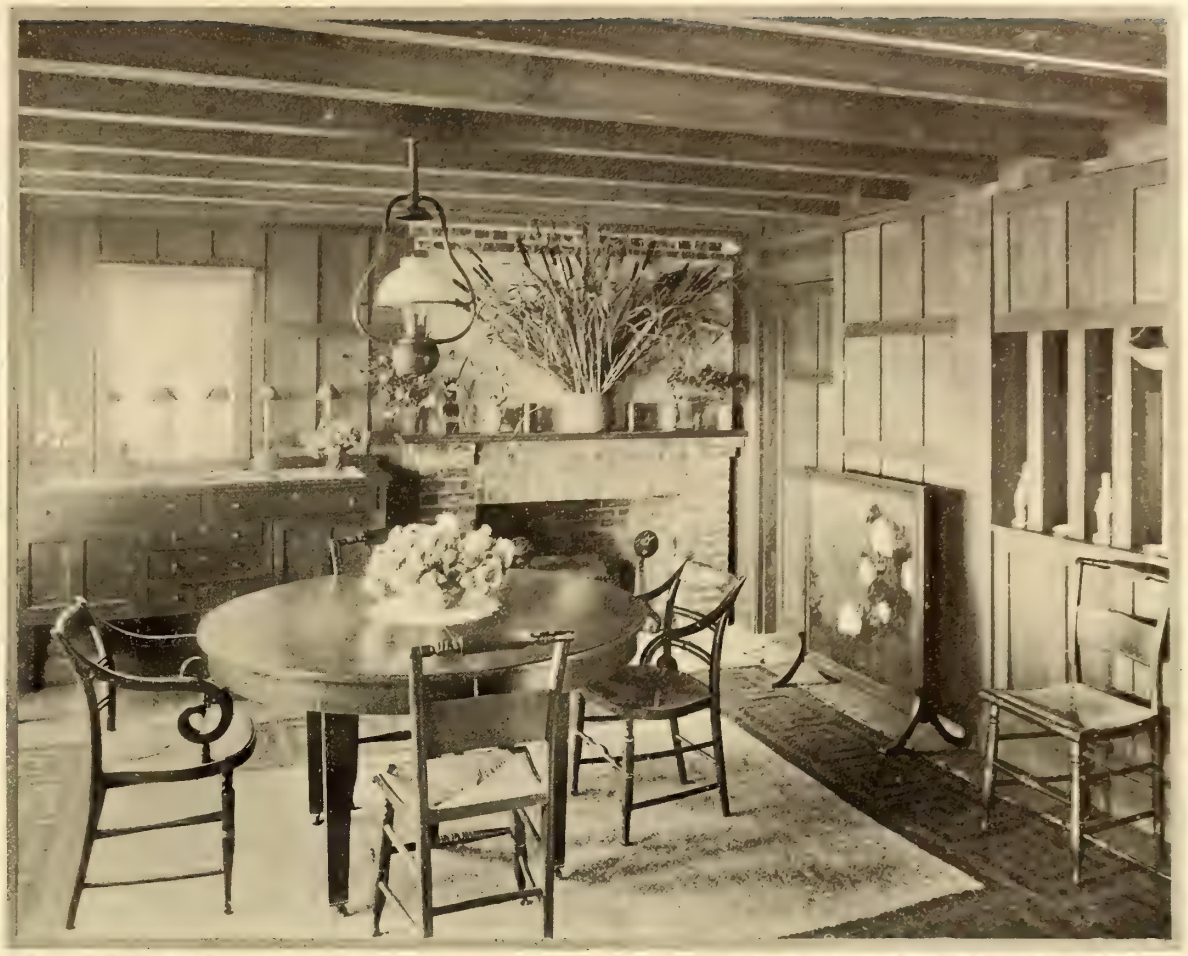
Where the children, dressed as Indians, live the life of Aborigines

(*Continued on page 408*)

The little owners of this playhouse may imagine themselves brave and sturdy pioneers

DINING
OF ATTRACTIVE

ROOMS
YPE AND DESIGN



DINING-ROOMS
OF ATTRACTIVE TYPE AND DESIGN

Weather-vanes, as indicators of the wind's doings, have held an honorable position in tradition

Weather-Vanes

By Harold Donaldson Eberlein
Photographs by T. C. Turner and Others

IT matters not a jot if conversation about the weather *is* taboo. It matters not if polite society falls upon weather talk only as a *dernier ressort* when all other topics languish in the company of unutterable bores. Just the same, we are all interested in the weather, vitally interested in it. The very first thing we do when we awake in the morning is to look out to see how the day is going to be and whether it is going to suit our several occasions of business or pleasure. At the breakfast table, the chances are that, as the pater familias hastily glances at the morning paper, some one will ask "What does Old Probabilities say?" or, if the skies be doubtful, the weatherwise member of the household will have to dispense advice about taking umbrellas or raincoats.

So then, since the state of the weather is, and always has been, of such moment to man in his work and play, his disposition and his doing, it is small wonder that the direction of the wind should concern us, for the wind it is that chiefly governs the local conditions of the weather. Its variations are fraught with all sorts of issues for us, some good, some bad; its constant inconstancy is a kind of balance to the wheel of fortune, bringing divers things to divers men at each veering, just as wise old Thomas Tusser, of "Good Husbandry" repute, sang long ago:

"Except wind stands as it never stood,
It is an ill wind turns none to good."

Weather-vanes therefore, as indicators of the wind's doings, have held an honorable position in society from the earliest times and have appeared in all forms from the finger of the savage, wetted in his mouth and held up to see which side felt cold, to the gorgeously gilt chanticleer perched with haughty mien atop the church spire, swelling his chest and perking his tail feathers with an air of conscious superiority to all sublunary creatures. A dependable weather-vane near by is not only a great help in making your own prognostications, but is also really companionable. If you have a weather-vane of your own or one of your neighbor's—which will do quite as well—that you can watch and become thoroughly familiar with all its performances, you will be surprised to find how weatherwise you will soon grow and how proficient in making reliable forecasts. An amazing store of weather lore will soon pile up, gathered from that best of all sources, personal observation. Your increasing ability to distinguish local conditions and discern impending changes will

An old Philadelphia weather-vane

Types of weather-vanes suitable for country-home out-buildings

foster in you a proper spirit of independence. It will also wholesomely stimulate your esteem for the study of that most interesting, honorable, ancient and worthy branch of learning, the weather or, to give it its proper title, meteorology.

The word "vane" according to strict historic signification denotes something extended or spread out to the wind as a flag or pennon. A thin plate or slip of metal or wood pivoted out of center on a spindle so as to revolve freely in the wind, turning the heaviest portion away from the point whence the wind blows, is a weather-vane. Likely enough, from its etymological derivation, a flag or pennon was the direct ancestor of the weather-vane which was doubtless made first in that form. We have a survival of this original type in the dog-vane on shipboard, a cone of bunting the open end of which is stretched about a ring or small hoop attached by a swivel to the masthead.

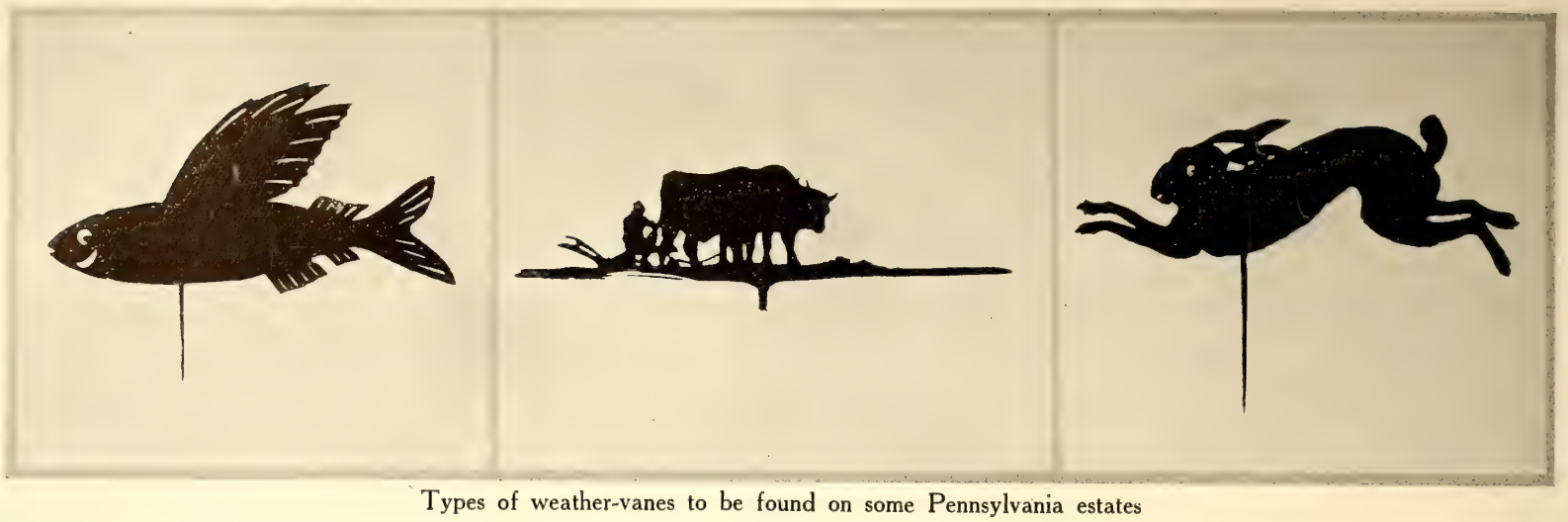
The first weather-vane of which we have any historical record was constructed by the Greek astronomer, Andronicus of Cyrrhus, somewhere about the year 100 B.C. His horologium, the so-called "tower of the winds" at Athens, a portion of which may still be seen, was an octagonal building with figures representing the eight principal winds carven on each side. On the summit a brazen Triton, with a rod in his hand, turned round by the wind, pointed to the quarter from which it blew. Weather-vanes may be of an almost endless diversity of patterns but the best, very naturally, are those that are simplest and respond most readily to the slightest breath of wind.

The practical essentials of a good vane are that it shall be reliable, keep in order and work easily. A weather-vane that doesn't spin is like a clock that doesn't run or an inveterate liar whom you never can believe. It tells the truth only when the wind happens to be in that particular quarter just like the stand-still clock that is right only twice in the twenty-four hours. Although the scientific requirements of a vane are few it nevertheless keeps excellent scientific company; it is, in fact, a necessary member of the weather man's outfit of polarimeters, hygrometers and heaven only knows how many more imeters and ometers of sundry sorts.

Vanes are not hard to make and with an ordinary amount of care and neatness in handling tools, a wind-indicator that will be really accurate and sensitive can be made in the home workshop. In setting the vane on its spindle one must see to it that there is a proper balance and that the greatest overhang comes on the side opposite to that facing the wind. Weather-vanes may be devised of almost any desired pattern that the maker has ingenuity to design and skill to execute. The devices may either be shaped from wood of about half an inch in thickness or from a thin sheet of metal. Sometimes, also, a very light framework of wood is covered on both sides with thin metal sheets in order to secure greater stiffness where the design is of an elaborate character. Anyone possessed of a mechanical turn and a fancy to put his conceits in tangible form can find plenty of occupation for odd moments in contriving vanes of a fashion distinctive and appropriate for the places they are meant to occupy.

A wind-pennant, such as already referred to for use on shipboard, may easily be made by fastening the mouth of a cone or funnel-shaped piece of silk or cotton around a metal or wooden ring about five inches in diameter. The cone should be from fifteen to twenty inches long and closed at the small end; the most satisfactory material is flag bunting. No form of vane is more sensitive and reliable than these pennants; they respond to the least stirring of air. At the

Weather-vane on a gardener's cottage



Types of weather-vanes to be found on some Pennsylvania estates

expense of a little trouble a weather-vane may be constructed with an attachment for indoor readings. Connection may be made either electrically or mechanically by an inner spindle with a dial like a clock face on which a hand indicator points to the quarters of the compass instead of to the hours. North is at the top, South at the bottom, West at the left and East at the right. The great advantage possessed by this sort of vane is that it can be read at night. Occasionally weather-dials are set on the exteriors of buildings and always supply a pleasantly animated feature.

In their architectural significance weather-vanes are of just as much import to most of us as they are in their purely practical capacity. To begin with, the right kind of vane suitably set imparts a finish and distinction that nothing else will quite take the place of. On spire or turret, on lantern or gable, a vane strikes a note alike of finality and life: of finality because its presence shows that the culmination has been reached, the structure is complete, there is nothing more to be done; of life, because it seems in some way to say that the building it surmounts is instinct with the quickening spirit of nature whose breath currents it marks with its never-resting pointer. Of course, to be acceptable the right vane must be in the right spot. Place and setting must be perfectly congruous. Better no vane than the wrong vane or the wrong setting. But just herein lies the chance of the architect to make a happy stroke.

Weather-vane on the porchroof of a country house

A weather-vane is in itself a legitimate piece of ornamentation inasmuch as it emphasizes structural points and at the same time it is susceptible of much embellishment and ornamental treatment on its own account. A graceful vane oftimes supplies just the one needful complement of detail to perfect the line of a roof or pinnacle and relieve any sense of baldness that its absence might occasion. Wherever it may be set a weather-vane certainly prevents any feeling of monotony. If you wish to test the truth of this, look at some point from which a vane that you have been accustomed to watching has been removed and see how lifeless it appears. Think, too, whether nine times out of ten, other things being equal, you wouldn't rather look at something with an element of variability in it to break its sameness, an element of movement and life. And try, besides, looking at a live vane and a "stickit" vane that always points one way, no matter whether Auster blows gently or Boreas roars and rages, and see how much more interesting the live one is.

Quite apart from architectural or artistic aspects, a weather-vane may serve as an index to the special character or office of the building it stands on. It may advertise not only the use to which the building is put, but may also give a hint of the business, recreation or personal fancies of its owner, establishing thereby a kind of personal spirit in the fabric itself. Through the medium of the vane's individuality the personality of the owner may make itself plainly apparent. So much is this the case that someone has aptly said, "As the book-plate to the volume, so is the weather-vane to the homestead."

Sometimes a vane is expressive of the dominant consideration of a whole community as, for instance, the sacred gilded codfish, emblem of Massachusetts' prosperity, swimming aloft in the blue of heaven above the steeple of Marblehead church. Considering what the harvest of the sea has meant to generations of hardy Marblehead fishermen, it is no wonder the codfish should hold an exalted place of honor on one of the chief buildings of that fine old coast town. Just why gilt cocks should root so nonchalantly on so

(*Continued on page 403*)

The front view of "Upwey," house, gardener's cottage and stables presents the aspect of old-world domestic architecture

A Country Home of Distinction

By Gardner Teall
Photographs by T. C. Turner

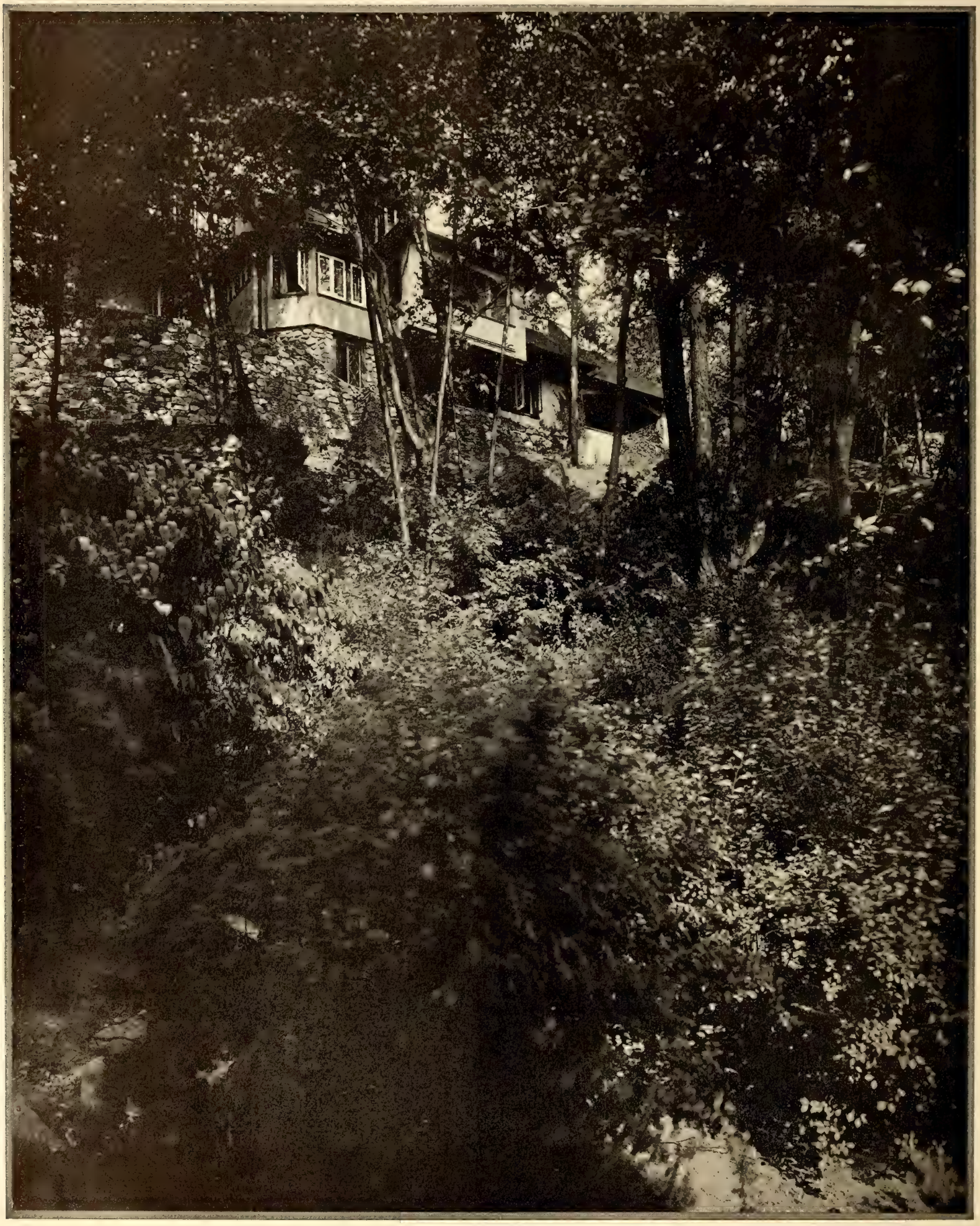
THE city dweller, immured by the formal surroundings of a metropolitan home, whether it is a house or an apartment will, if he be half-way human, sigh now and then for a bit of life in the country, not for the discomforts that often enough attend his vacation jaunts to out-of-the-way places, but for a bit of land of his own where there are trees and flowers and birds, (clean snow in Winter, if you like!), to make the house he would like to build on it seem like a real home, which the memory of his boyhood spent amid such surroundings recalls to his town-tired mind.

There used to be a time when the city was the city and the country the country, when the one sort of life stood for a more comfortable sort than the other, and to the city dweller the thought of life outside of the town seemed fraught only with the possibilities of every discomfort the mind could conjure up. These were the days (and they were not so long ago, either) when we had forgotten the good things about living in general which our ancestors in late Colonial times had known and enjoyed and had not yet entered upon the present era of the return to the land. But it has always remained with us—this enjoyment of country life, to think, that the renaissance of our interest in it is unified and many men and women the land over are proving it. It would be difficult to withstand the appeal such a spot as "Upwey," the country home of Mr. Ernest Elmo Calkins at Elmsford, New York, makes instantly to one who is fortunate enough to visit it, or who is given the pleasure of seeing it illustrated, even though the most beautiful photographs do it scant justice.

The entrance door

The site of "Upwey" is particularly attractive. The house is built in the midst of a wooded area on the top of a rocky hill, whence one may look out across the valley to a picturesque range of hills that rise between Elmsford and the Hudson River. "Upwey" is not a large house—indeed, it contains but seven rooms and the bathrooms, but it is complete in its appointments to the minutest detail. Essentially a house to be lived in and a home to be enjoyed, "Upwey" is strongly impressed with the sense of an individuality which makes its completeness the more attractive.

There are few features of old-world countryside architecture so delightful as



Few country homes are as fortunate in their location as is "Upwey," which, situated upon the hillside commands a delightful view of the surrounding country. A path winds up to the entrance of the garden front through beautiful shrubbery

the cottage groupings one finds in English villages. One truly wishes we might oftener strive for such effects here in America where there is the landscape fitted to such architectural arrangements. "Upwey," with its harmonious outbuildings has taken on this cottage aspect, presenting, as one approaches it from the roadside, a thoroughly charming exterior, preparing the visitor for the excellence of the interior when he will have crossed the hospitable threshhold. A vine-covered façade knits "Upwey" to its surroundings, and in Winter furnishes a pleasant pattern for the eye to rest upon, although the walls of native stone and stucco are thoroughly attractive in themselves at all seasons, with

the half-timber construction peeping out here and there to lend to the whole a sense of warmth.

The house is entered through a broad doorway opening into a square vestibule from which one may look straight ahead through the hallway that gives direct access to an attractive room-like covered porch of goodly proportion. There is always something pleasant about a hallway that runs directly through a house, reminding us of the old-fashioned hallway arrangement of Colonial houses. However, in "Upwey" this hallway does not lead to a level. Instead, the porch mentioned above is a story above the rear garden level of the house by reason of its hill-crest location. This out-door "sun-parlor" (to use a commonplace term for something as far removed from the commonplace as a porch could be), is also reached from a door to the left of the windows at the end of the dining-room and often the host and hostess of "Upwey" have the table set there for the morning repast. In Summertime as one sits here when the golden sunlight glints the leafy tree-tops just beyond, it all seems like a house in the tree-tops such as the fancy conjures up when one turns the delightful pages of "Peter Pan" till he comes to where Wendy and Peter Pan live happily ever afterwards.

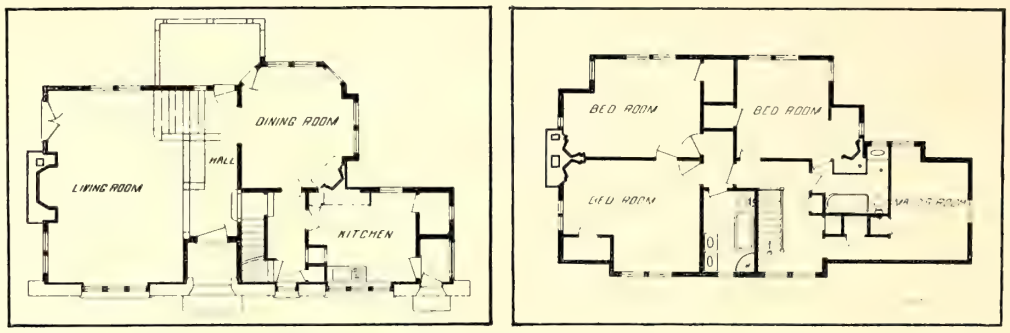
The garden front of "Upwey"

I suppose the passer-by would never be able to "guess out" (as the schoolboy said of the puzzle) the arrangement of the interior of "Upwey" from the exterior. There are the little windows—not so little, either—of leaded panes which you see from the roadway, imagining, perhaps, that if you stepped close to the house you might be looking directly upon a ground floor on the same level as that at which you would be standing. But once inside you discover that these windows light the large living-room to the left of the hall some distance above one's head as he stands in this room which is sunk eight steps—some six feet below

The excellence in design of the gardener's cottage and the stables of "Upwey" is emphasized by the planting and setting of trees

the floor of the entrance hallway. The illustrations on page 398 clearly indicate the relation of the hall to the living-room, the former taking on a gallery-like appearance when viewed from the floor of the former. The ceiling of the living-room is squarely beamed, and like the rest of the woodwork of this level is of brown oak whose grain has been beautifully brought out by a careful wax and sand finish. While there is a certain massiveness in the materials of woodwork construction there is nowhere in this room or anywhere in the house a sense of oppressive heaviness therefrom; quite the contrary. Everywhere the feeling of the house is one of intimate comfort without one forbidding architectural note intruding itself. The living-room walls above the paneling are rough plaster tinted a rich yellow, which harmonizes with the colored bricks of the great fireplace and chimney. This fireplace is one of the five in this house. It has a projecting hood, reminding one of the fireplaces in the old manor-houses of England, and the opening is five feet across. Moreover it does not smoke, an added blessing to an added comfort! The chimney that draws is an enviable thing, in this day of crowding flues together and it means much to chronicle the fact that the chimneys of "Upwey" draw, and that every fireplace in the house shares the distinction of the one in the living-room. It is interesting to study their arrangement upon the plan.

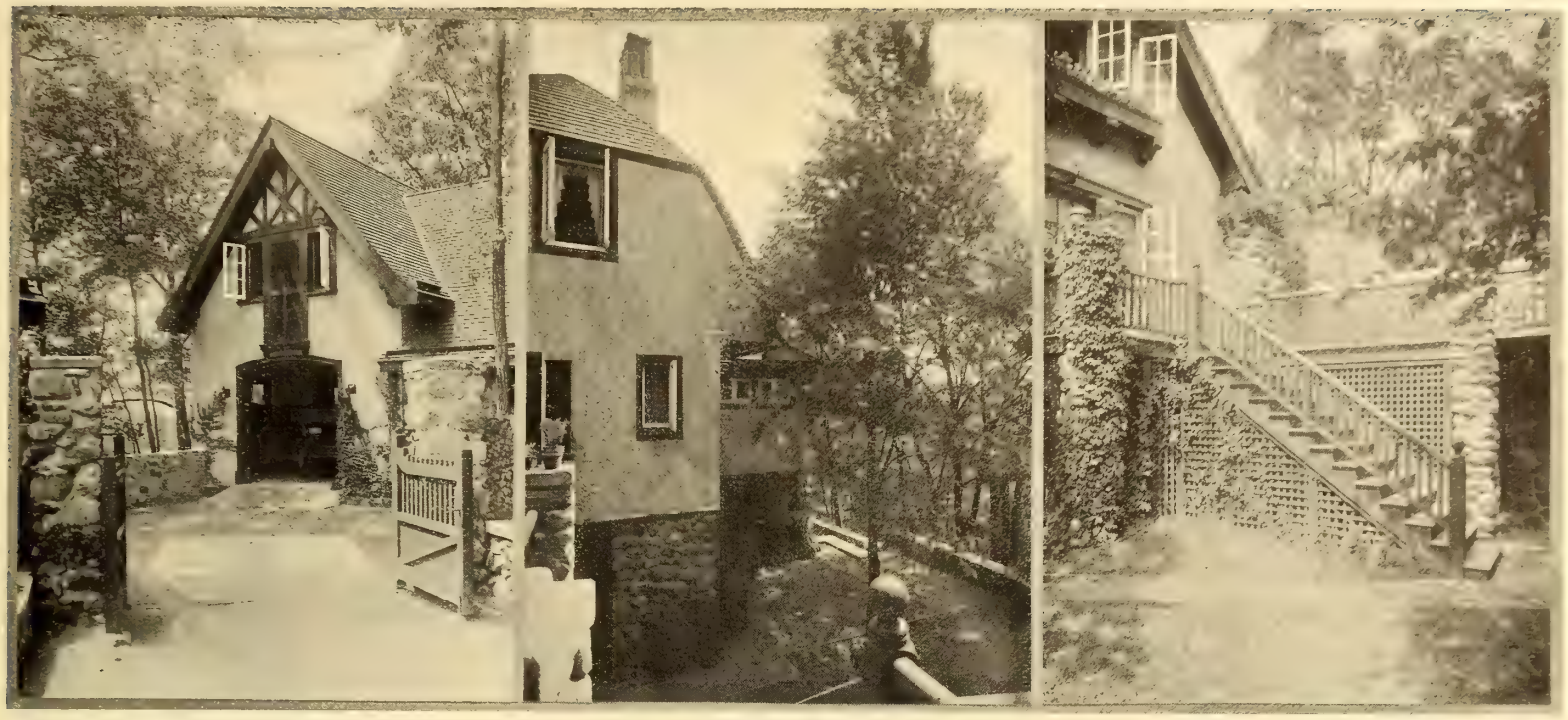
Interior view looking down upon the living-room



The first floor plan and the second floor plan of "Upwey" here shown were somewhat modified in the completed house by the addition of the ombra leading from the living-room door to the right of the fireplace

From the living-room one may step out by a door at the right of the fireplace upon a large outdoor room—the *ombra,* the Italians would call it. This spacious shaded

The living-room of "Upwey" showing the dining-room which is on the level eight steps above it



The stable entrance

Corner terrace

Steps to the upper level

porch is one of the most delightful spots in Summer imaginable, for it looks right out into the tree-tops after the manner of the porch of the dining-room. In their season flowering plants fill the boxes that rest upon the low enclosing wall, and the humming birds love to come to sip honey from the sweetly-scented blossoms, whose fragrance is wafted indoors by every breath of wind blowing.

The dining-room, which has a fine built-in sideboard, is just across from the steps leading up from the living-room to the hallway. It is a comfortable, attractive room and well placed in the plan. The service part of the house has been skilfully worked out, especially in the plan of the servant's bedroom, the bathroom and the sewing-room. The woodwork throughout the service part is enamel finish and the plaster walls are finished with a tint of neutral tan color.

The gardener's cottage to the north of the house has two bedrooms and a bathroom upon the upper floor and a large living-room below. These rooms have walls of rough plaster, tinted, and correspond to the walls of the larger house. The stable is to the right of the gardener's house.

The dining-room of "Upwey" is one of the most successful rooms in the house. The oak woodwork is stained brown

There is not a more healthful, grace-giving exercise than that of archery

The Revival of Archery

By Helen N. Marion

ARCHERY, a favorite diversion in the days of Robin Hood and his "merrie men," is becoming one of the popular as well as harmless and fascinating sports of to-day.

The game of archery is as old as history, but like everything else connected with long bow shooting, it was brought to perfection in England during the period between the Conquest and the date of the adoption of fire-arms for the infantry of Great Britain. As soon as guns had supplanted the bow and arrow as a means of warfare, the great practice fields made for public shooting were dismantled, and archery became simply a sport, adopted by the wealthy, and all the archery tournaments were confined to the beautiful parks belonging to the old societies, or to the lawns prepared at the country places of gentlemen who patronized the sport.

These English archery meetings were often conducted with great grandeur. Showy tents were set up on the lawn, bands played popular airs, while the bowmen, gayly dressed, paraded here and there about the grounds. Again the shoots were social affairs, conducted with more privacy, held under the auspices of some interested friend of the sport, who invited a few congenial spirits for an afternoon's shoot and simple informal dinner.

This old-fashioned game is coming into vogue more and more here in America. One of its greatest charms lies in the fact that it is an exercise which is not confined to men alone. Women have attained a great amount of skill with the bow, and it is especially recommended to those who do not enjoy the more violent forms of exercise.

It combines interest and health giving activity, and is an excellent game for developing the muscles, giving grace of carriage, adding suppleness to the body, and training the eye, and it has the advantage of showing off a good figure, or of developing one for the girl who wishes to attain it.

The first point to consider, if one wishes to take up with archery, is the bow. This should not be too strong, as archers new to the sport are apt to make this error. Even of more importance than the bow is the arrow, as this requires the greatest nicety to make. One can get on with a bow of inferior make, but unless the arrow be of the best, Robin Hood himself would have aimed in vain. The best wood for arrows for target shooting is hard seasoned pine.

Next to having a perfectly straight and even arrow, the feathers should be considered. For long range shooting the feathers of the arrow should be narrow, and the shaft light, while for short range more accurate shooting, the shaft must be heavy and the feathers broad.

If a girl wishes to take up this sport as an exercise only, and is not particular about making record shoots, just as

much pleasure can be obtained by using less expensive outfits. Bows and arrows can be purchased at a very reasonable figure, or they can be made at home if one is clever. Bamboo can be utilized in this case.

The target may be made of twisted straw, covered with thin canvas or even paper, on which a bull's eye is painted. Archery tournaments may be held in one's own yard, but one thing the invited guests or onlookers must remember is to get out of range of erratic marksmanship.

This sport to prove beneficial, like all other exercises, must be kept up, and practiced regularly to obtain good results. There is no tonic in the world like out-of-door life, and this combined with healthful exercise, soon shows in rosy cheeks and fine physique.

This sport in the United States has not in the past been nearly so popular as it should have been, considering the advantages which have been attained from it, and it has not been carried to the same degree of perfection as in England. In 1879 the National Archery Association of the United States was formed, and holds contests annually, the same regulations being employed as those used by the English National Association. The targets are fixed exactly opposite each other at sixty yards, or more, when a longer distance is to be covered.

The proper number of arrows called for by the regulations are shot from each end (row of targets on their stands) by all the party assembled. When this has been done all pick up or extract their arrows, the marker scoring for each before they are drawn from the target. After this has been done, the arrows are shot back to the other end, and so on until the whole number of ends have been shot. The word end is also used to signify the number of shots fired consecutively from one spot. For instance, if a shooter lets go three arrows, one following the other, it is called an end.

In the English field regulations, which could be followed if one wished to enjoy an amateur tournament, the rules are—shooting to be in the order in which the names are entered on the target list, any one not ready when called being obliged to shoot last.

No one is allowed to shoot out of his turn. No arrow to be withdrawn from the target until it has been scored by the captain, or it will lose its value. No talking is allowed at the ends while the shooting is going on, and only those shooting are allowed in front of the target. All arrows must be clearly marked in different colors, the colors chosen by each person being entered on the books.

The interest shown among the people of England is no doubt increased by its historic associations, and by the famous victories which have been won by their ancestors, but as a sport pure and simple, combining exercise which is beneficial for young and old alike, it should be taken up by the people of America, and made as popular as tennis, golf, swimming and others too numerous to mention.

In the cultivation of archery in its various fields; that of battle, outlawry, chase, games and sport as practised on the sanguinary plain, in Sherwood Forest, in the hunter's preserve, at Olympic Games, or in lawn tournaments, the range of its phases even as we have given it, is hardly complete, for one realizes that in the refinements of the art as incidentally pictured in our illustrations and in the play of garden parties where the sturdy archer and the fair archeress enter into the glory and the pleasure of sterling competition, they enjoy a recreation, which is that of "Pastime."

Archery affords a delightful twentieth century pastime in contrast to its employment in Robin Hood days

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

HARDWARE FOR THE SMALL HOUSE

By Harry Martin Yeomans

THE demand for complete harmony in every detail of the modern house can be satisfied even to the key-plates and the door-knobs, for the great interest in household art and the desire for more artistic fine hardware, has resulted in the manufacturers designing and carrying in stock fine metal trimmings and ornaments to carry out decorative schemes of any of the great periods of decorative art, from the Gothic down to our own American Colonial, not to mention the modern Mission style.

The prices vary according to the style and finish from the medium-priced to the mercury-gold (gold-plaited, burned on with mercury), metal trimmings suitable only for elaborate schemes of decoration and large purses.

In common with all other details of the little house, the fine hardware should be selected with care and discrimination so that the locks and catches are of good quality, and will not speedily get out of order, but in this small article we shall be more interested in the outward appearance of the hardware, such as the escutcheons and knobs, the design of which should be suited to the general character of the house in which they are to be used. They should not be too frail-looking, neither should they be so heavy and elaborate in design that they attract attention in themselves. The door is the principal thing and its knob and key-plate are only incidentals, and while they should be good in detail of design and workmanship, they should not attract one's notice on account of their size or elaborateness.

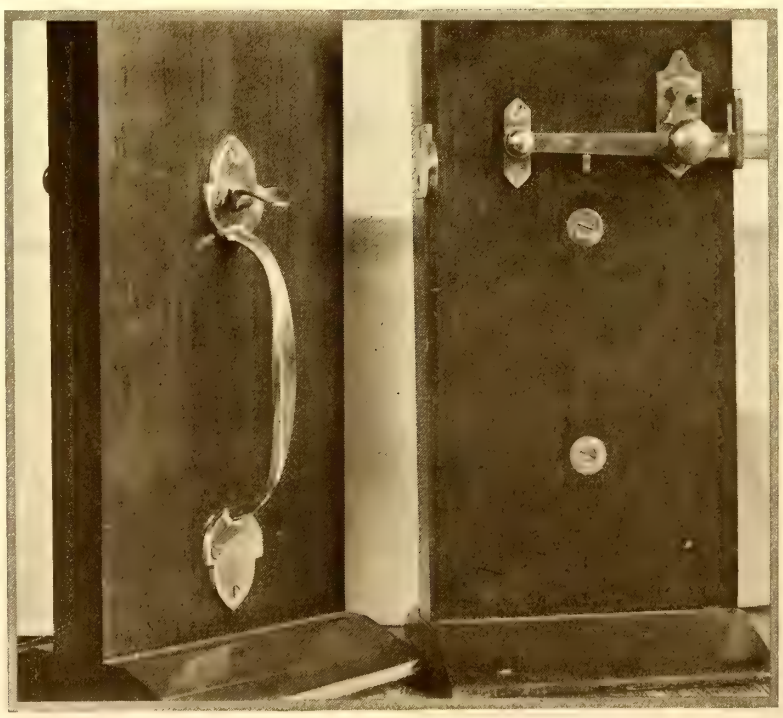
This general rule can be transgressed, however, with reference to the main door of the house, facing the highway, which should have an ample lock and ornamental trimming of goodly size and character for this heavier door and to denote the principal entrance to the dwelling. This lock is the defence of the home, and this main door is to keep people in as well as to keep them out.

The strap hinge of wrought iron fulfils the requirements of good design, inasmuch as it is both useful and ornamental, and it is a pity that it is not more frequently employed by architects. On the heavy entrance doors of brick houses of Elizabethan or Tudor architecture, or those showing Italian tendencies in their lines, strap hinges would be both appropriate and artistic, or on cement houses of the Mission type.

The fine hardware for the little house can be obtained in wrought or cast bronze, brass, steel or iron. It comes in a variety of beautiful and artistic finishes. The brass hardware can be obtained with either a bright or a matt surface, while the bronze escutcheons and knobs show traces of red or gold in the finish of the fine detail. A beautiful *vert antique* surface can also be obtained for schemes that require a dark-toned hardware. Some of the hardware is electrically plated, but when the basic metal is iron, it should be avoided, as the plating will wear off in a short time.

For the average small house of moderate cost, the hardware of Colonial design, in brass, is perhaps the best and most appropriate. The simplicity of design makes it available for the house that is really Colonial in detail, as well as for the house that is just "modern" with no decided architectural characteristics. One knob and escutcheon is attractive on account of its utter lack of ornamentation, while another has its plainness relieved by a simple beading around the edge, and one could not make a better selection for a smll house.

For the entrance door and interior doors of Colonial houses, the manufacturers are now reproducing the thumb or lift latch which has been almost entirely abandoned in favor of the conventional knob. They come in both brass and iron. These latches are especially appropriate for remodeled farmhouses or for new houses of the farmhouse type, and should be used in connection with an old-fashioned brass or iron knocker, when placed on the entrance door.



A simple Colonial cottage type of door-latch

The glass knobs should not be overlooked when the fine hardware for the house is under consideration. They give an old-time atmosphere to white painted doors, and as they can be washed, they make a big appeal for both sanitary and artistic reasons. They can be obtained both in pressed or cut glass. There are also tiny glass knobs for the inside folding shutters.

The great number of bungalows and houses of the Mission type, in all of its ramifications, which have been built within the last few years, have brought forward hardware of great simplicity of design, having a dull finish like gunmetal, and especially designed for houses of this nature.

Money spent for good hardware is never wasted and the subject should not be dismissed as being of but slight importance. The following table is supplied by a well-known firm of manufacturers, for the guidance of the intending home builder, and gives the lowest *approximate* amount which should be allowed for the house hardware; excluding the rough hardware, such as nails, sash pulleys, sash weights, and other items of a like nature:

For houses costing			$3,000,	allow	not	less	than	$75
"	"	"	4,000,	"	"	"	"	100
"	"	"	5,000,	"	"	"	"	125
"	"	"	6,000,	"	"	"	"	150
"	"	"	7,000,	"	"	"	"	200
"	"	"	10,000,	"	"	"	"	300

The dealers in fine hardware issue catalogues of their products and it is a good idea to look into the subject during the early state of one's building operations.

WEATHER-VANES

(*Continued from page 394*)

many church spires has never been quite satisfactorily explained by either antiquaries or ecclesiologists but the fact remains, nevertheless, that the specimens of aureate poultry are so numerous that they have made the name weather-cock interchangeable with weather-vane. Ecclesiastical lore is so richly emblematic that there seems no good reason why a reminder of Peter's inconstancy should enjoy a monopoly of steeples.

It is when we come to dwellings and their adjacent out-buildings that the fancy for variety in vanes takes its fullest play. Byre and stable, hennery and kennel can each be designated by an appropriate device. A lodge and gardener's cottage is unmistakably labeled by the vane shown in one of the illustrations where the worthy floriculturist is caught in the very act of watering his posies. The flowers are rewarding his labors by flourishing famously. One of the poultry houses on the same estate is marked by the sign of the hen and chickens, the latter having an exciting tug of war with a hapless earthworm which they are heartlessly rending in twain. The circular gazebo or tea house of still another picture displays a scene taken from real life. From the little black and tan terrier at one end to the rabbit at the other, every detail has its actual prototype. The terrier chases the rabbit every day and always in the direction in which the "Molly-cotton-tail" *isn't* running so that the grouping is characteristic. The plants, needless to say, are Perennials.

The dairy-maid and the calf of course belong on top of a cow-house while the oxen might either go there or else decorate the ridge of a shed for farming implements. No one will question for a moment that the horses are meant for the stable vane or that the woman and chickens are destined for a hen-house. The fish is intended for some seaside building and the hare of course is called to preside over a rabbitry. From these few specimens some notion may be gained of the manifold possibilities for suitable and decorative vanes. We can, if we will, have a whole aerial menagerie, one might say a whole cosmogony, for every conceivable thing that swims, flies or runs seems susceptible of some representation. Besides animate objects there is a choice assortment of such non-committal things as arrows, bottles, keys, feathers and bannerets. All these and many more there are silhouetted against the sky, at the beck of every capricious wind that blows, ready to delight the eye and minister to the fancy as they turn now this way, now that. A little thought spent on getting a good and representative vane is always thought well invested.

Glass or crystal knobs are appropriate for doors where the woodwork is white

JAPANESE FOUR-POSTERS

A CORRESPONDENT writes that she wishes to furnish a bedroom in the Japanese style but fears a four-poster bed which she wishes to use would be out of place in such a room. As a matter of fact the four-poster boasts of an ancient ancestry in Japan itself for they were in use as early as the Heian dynasty (722-1155 A.D.). These Japanese *chodai,* as they were called, had flat top-canopies, a deep valence below and the draperies hung straight down in panels at the corners, and touching the floor.

A HOUSE BUILT FOR COLONIAL FURNISHINGS

(*Continued from page 383*)

church. A contemporary of the table is the old lamp which stood on the ancient mahogany pulpit of the same church.

Even the ivy which gracefully twines its tendrils over and around the windows, has its own history. It was brought in a wee slip from Mt. Vernon, and kindly taking root, is now running riot over the room. Upstairs, large square chambers filled with antique furnishings, carry out the colonial scheme of the house. It is interesting as one goes from room to room to note the careful thought that has been given in its design to make a suitable home for the historical pieces which are shown on every side.

It is seldom one finds in one collection so many interesting and unusual pieces as are shown within this home.

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

NOVEMBER GARDEN NOTES

THE gardener's kalendar varies little, year after year, from the re-current tasks and occupations that present themselves to the garden-maker with the return of the month. Now and then someone discovers something to add to the list of things to be done, or subtracts something from the sum of one's gardening operations as a thing to be postponed or placed ahead, as new experience leads the consensus of modern authorities to approve.

OF course November is the general garden house-cleaning month, the time for raking-up leaves, for bonfires and for getting together the last contributions to the compost heap, which will be useful in the Spring, for strewing over the garden before the soil is worked up.

I OFTEN think we take too little interest in the study of the plants in our gardens, simply regarding our beds of beautiful blossoming plants as areas of lovely color, delightful fragrance, the flowers themselves with transient sentiment. It seems to me that in the long Winter evening before us, the true garden lover will wish to learn something more intimate than the mere names of the flowers he selects from the nurserymen's catalogues as units of his garden-to-be. He should take heed of the pleasant recreation which botany will afford him, and will find that a little subject of the study now will bring an added pleasure to his interest in plants in all seasons to come. And then there is much that is entertaining, and well worth while in a study of plant-love in its literary aspects. Read your Shakespeare carefully, or your Chaucer, or old Omar Khàyyàm with an eye to the discovery of the flowers these old authors mentioned in their immortal writings. What could be more delectable than a little garden of the flowers Shakespeare mentions, or Chaucer, or a garden of the fragrant blossoms we have borrowed from the Orient of which "The Rubàiyàt" makes mention? Again, when we have begun our selections for early ordering, why should we not take a little time to consider the legends of the plants of which we are fond? Surely it is worth while digging them out of the old-time garden brooks, translations from the classics, encyclopædias, histories and other books. How much it adds to our interest in a flower, to know more than that it is merely Heliotrope—purple—fragrant—delicate. Is it not a true satisfaction to know that this sweet plant first came from Peru, that it was brought into France, that the sentimental garden-folk there called it, the herb of love, and Ovid's story of Apollo and Clytia which we have attached to it? Surely it is worth all the trouble to which one puts himself in delving into the legendary love of the realm of the goddess Flora for stories of the flowers and plants that find a place in one's heart and gardens.

"When the pumpkin's on the vine"

AN ARBOR SEAT

By Zulma DeL. Steele

IN the small suburban, or back yard garden, of the ordinary city lot, where there are no trees or large shrubs to furnish shade and where, very often, the sun beats down pitilessly, or is reflected from the walls of adjoining buildings, it is a problem how to contrive a shady nook or corner where one can read, write, sew, or sit down to sort out seeds or arrange flowers, and one may well consider the subject now and plan in November the building of an arbor seat for next Spring's planting to bring to completion with the return of another Summer.

OUR garden was a parallelogram bounded on two sides by picket fences, and separated from our neighbor in the rear by a high, close, board fence. Against this fence in the center of the space, we built a little arbor six feet long, with a box seat, and a lattice roof projecting somewhat at

the ends and in front. Here we planted climbing roses, and Clematis Paniculata, but as we knew these would not give us much shade the first year, we set out in front of the roses, at each end of the arbor a white moon vine. This made a rapid growth and soon gave us a welcome shade. The pure white flowers opened at sundown, swinging their fairy-like censers in the evening breeze, adding their delicate fragrance of incense to that of the Nicotiana and Sweet Alyssum of the border.

THE lower left hand illustration on this page is from a photograph taken after six o'clock when the flowers had just opened. This gave us our shade for the first year. The following year the roses and Clematis performed the office and the second photograph shows the little arbor in September wreathed completely over with Clematis.

Plan to plant Mallow in marshy places next year

HERE books and magazines were read, and letters written, and even the prosaic mending basket assumed a new interest amid such surroundings. There were long and intimate chats with dear friends under the shade of that arbor, with sometimes a leisurely Sunday morning breakfast served on the garden table in the dewy freshness of the day, or a simple supper in the quiet hush of the early evening.

THE arbor had its practical side also, as the box seat held, and concealed from view, the fork and the spade and other garden tools and flower pots, and the garden table, drawn up when necessary, gave a center of interest when there was anything of importance to be done in the garden.

RIDDING ASTERS OF APHIS

A READER of AMERICAN HOMES AND GARDENS suggests the following remedy for ridding Aster plants of the aphis which attacks the plants at their roots. Bore holes by each plant and place in each hole a teaspoonful of bisulphide of carbon and cover immediately with earth. The solution is highly inflammable. Also it must not be inhaled.

This garden seat the first season was covered by thick-growing Moonflower vines, but later, the second Summer, Clematis (C. *paniculata*) and Rambler Roses formed the arbor shade

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

WHAT IS TRUE HOSPITALITY

By Elizabeth Atwood

WHAT is true Hospitality and what may a hostess do to make a guest feel welcome? Why just make him or her feel that he or she has come into the home, to be a part of it as long as their sojourn lasts. Longfellow puts it, "Hospitality sitting with Gladness." One must love all human kind in order to be glad when the unbidden guest arrives, at least this will be the case sometimes.

This day of intense living in compressed space is doing much to deaden the glad spirit. How seldom do we see the spontaneous hospitality of which we read, when, as in old times, the guest was all the more joyfully welcome for coming uninvited, and the setting of another plate indicated that he was admitted to the family circle.

Where has this old hospitality gone? We surely, in our every day fare, present a table more like the "company" table of the old times; yet the "dropping in" is a rare occurrence. Is it possible that we are changing? That we are losing the sense of sharing ourselves, unless our hospitality may come back to us in gratified pride? If this is so, the pride is misplaced, and we have a wrong conception of what we should be proud of.

I fear that the root of the evil which produces this condition, and which results in real loss of comradeship around one's table, is the constantly growing desire for ostentatious display. Simplicity, which was the real power of long ago, is rapidly disappearing. Ostentatious display for the invited guest may be followed by days of "simple living" which will amount almost to short rations; but to share that "simple living" becomes an impossibility because of pride.

"Hospitality sitting with Gladness." Is this not the keynote of true hospitality? Longfellow thought the idea of value, and translated it from Frithiof's Saga. To be glad with one's guest surely means hospitality of the heart, which is true hospitality. If you truly have love in your heart it will lead you to make another happy under your own roof; and this does not call for extravagant expenditure, it means just simply to share, literally to share what you have, be it much or little.

This desire to show off, to display one's artistic ability in the manner of serving, to get up extraordinary combinations, to buy rare products, in short, to present the appearance of affluence, although it may take days of self-denial to make up for it, is becoming so much the way of entertaining that the real, loving, hospitable feeling is slipping away from us. I regard this as truly deplorable.

How we smiled when Mrs. Wiggs, with her hospitable spirit, welcomed her unexpected guests, and frankly admitted that she would just put more water in the soup. But—how it warmed our hearts; for here was the all-mother love ready to share its pitiful belongings. Surely love is at the bottom of hospitality in its true sense.

One never knows the same unqualified pleasure of having friends to dine, when preparations more or less elaborate must be made, that one feels when the friend just takes pot-luck. Then the sharing becomes a blessing. The danger of the essence of formality poisoning the pleasure is gone, and the dear old-time feeling of hospitality is really true.

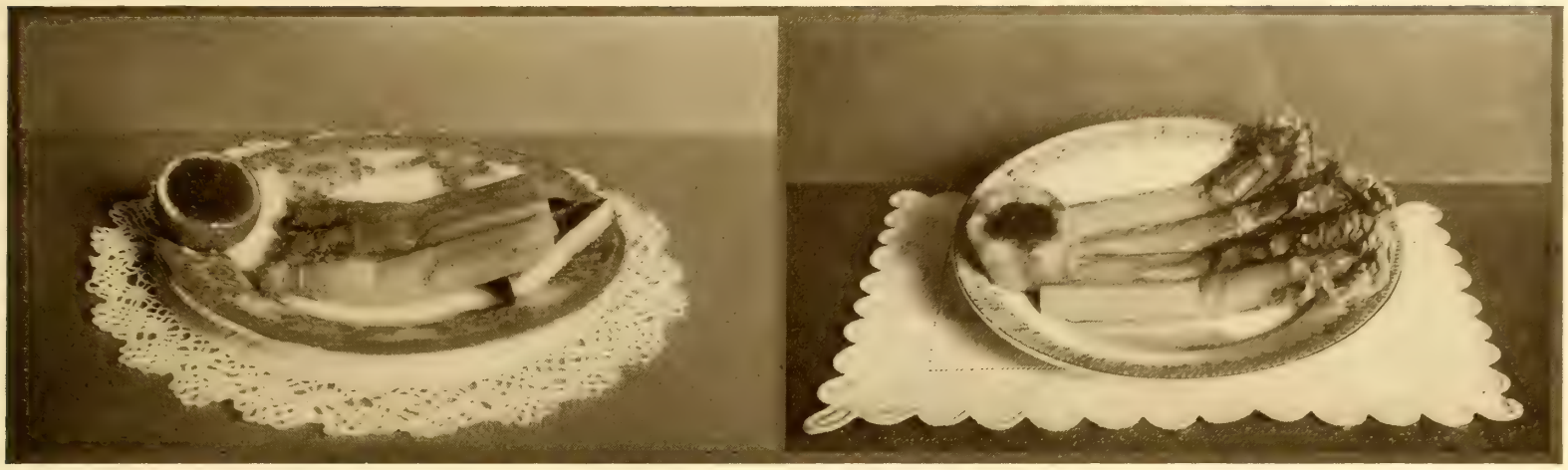
No danger of lack of conversation around such a table, for the certain feeling of brotherly love loosens the tongues. There may be need of much actual planning of the food in order to have enough to go around, but even that adds fun and variety to the meal. The real feeling of hospitality pervades the house, and this meal becomes an expression of friendliness which no guest could fail to appreciate.

The kind of pride to cultivate is the kind which lies in being willing to be taken unawares. This, may be, is selfish too, for you surely do get more out of it than the one does who takes pride in her more formal way of entertaining. In addition to this, the guest who is cared for because her presence is really desired is made more happy. Not that the formal meal is without pleasure; but that, so often it is lacking in real warmth and love, too often it is found to be a returning of like favors which does not take in the tenderer feeling embodied in the old-time hospitality.

Here comes in another lesson in hospitality. Are you hospitable to the members of your own household? I do not think that one should ever be so careless of appearances for their "own folks," that they would be ashamed before a possible unexpected, uninvited guest. I regard a sloppy, untidy table, as simply unpardonable. The cheapest things may be served neatly, even prettily, and for whom should this care be taken if not for our "own folks."

I know that my family have always been the ones I have planned for, and I know that no guest was ever more appreciative of my efforts. It is also true, that my husband or my children could always feel free to bring home a guest without announcing the fact beforehand, for they knew I would welcome them, put on another plate, and, for that meal at least, he or she would be one of the family. In my mind this is real hospitality, for without any effort I could give of my best as it would have been given to my family, sharing with the unexpected stranger what was prepared for them. In this way company is never a burden.

For the invited guests one always wishes to do what she can both in the matter of preparation and entertaining; but even here there is danger of overdoing. If one has a guest room always ready there is very little extra work necessary. But if one's oldest boy must sleep on the couch in the sitting-room, it becomes another matter. Even then do not



Two ways of serving canned asparagus. Photographs by Mary H. Northend

burden the whole family with the change. The right feeling toward the expected guest will not allow you to embarrass her by making such preparations too evident.

After all, it is the spirit of hospitality we must seek for and develop. With this spirit, all effort becomes a joy, and wisdom seems to be given the hostess to guide her way, making her home a refuge for tired souls, and also a place for the young to enjoy.

The hostess should be wise as a serpent and harmless as a dove. She must learn to gage her guest's qualities, for this business of entertaining is one which calls for the knowledge of human nature as well as love for it. She should be watchful of these transient members of her family, quick to show sympathy when needed, and ready for the confidence sure to be realized from these fine acts of attention.

She should follow the example of the Orientals, "who have trained into gentleness every tone and gesture, every expression of the face, till they have by the light of courtesy illumined their own lives, and show their kindly nature to even the smallest and lowest of God's creatures." Surely this is an ideal to work for, and mothers have much responsibility in the example they set to their growing children, for too few reach out the strong hand and greet with courteous kindness the shy and diffedent stranger, whether under their own roof or away from home.

Then, too, she must not think that she is the perfect hostess because she waits upon a guest by inches. I have in mind a home, an hour's ride from Boston which was the gathering place of old and young for many years. The home family numbered six, and there was only one maid kept. There was never a Friday or Saturday that there was not a jolly crowd of week-enders, and Sunday seldom saw fewer than a dozen at the table.

They were a changing crowd, these happy week-enders, as various in kind as human beings generally are. But they all fell in line and helped to do the work. The girls did the chamber work, while the boys helped gather the vegetables, and even the lazy ones, by force of example and the whirl of good feeling, did their share. Boys and girls, men and women, all did a part, and you know how true the old adage is, "Many a smale maketh a grate."

When the girls helped to set the table or to do the despised dishes, all was turned into a frolic, because the boys, some awkward and some skillful, were there to help either with advice or actually taking hold. It is really very surprising to me how very helpful boys can be to some other fellow's mother or sister. All this was far more entertaining than sitting around and being served more formally. Flowers were gathered and every attention given to making the house attractive, and the table inviting by these temporary members of the family.

Girls developed an interest in the art of cooking, and more than one engaged girl took lessons from this hostess. All, boys and girls, found that farm-kitchen a delightful place to be in. If that hostess had not possessed a great love for boys and girls, she would never have had them under foot at all hours; and be assured that they were most happy being with her, instead of belonging to the front porch or parlor.

As hostess, I have found that the guest has responsibilities too. "Why do I invite Nell so much," a woman once said. "Why? Just because she is a joy to have around. She never looks bored, she is always enthusiastic over every plan you make for her, is in for everything, yet does not expect to be on the go every minute." A guest who would be popular, must learn to be pleased with trifles and accept graciously what is done, and to be always in accord with everything. If you can't do these things, just don't visit.

A hostess should choose carefully those who are to compose a house-party, then, with a little guiding here and there, with seeming carelessness, not following after them all the time, her party will take care of itself and be happy. In order to do all this the hostess must love her people and be glad to serve them when needed.

Where this love exists you will be sure to find that tenderer feeling, which was embodied in the old-time hospitality. It does not mean that large sums of money must be spent to give your guests a good time, but it does mean that you

A NOVEL WAY OF SERVING FRUIT

By MARY H. NORTHEND

Apple House—Select large, sound apples, pare, core, and cut in halves. Cut each half to resemble a tiny house, filling the core cavity, which portion should serve as the bottom of the house, with chopped raisins and nuts. Ice the whole in white frosting, and when set, top the roof with a chimney cut from citron with the bricks outlined in chocolate frosting, and at the front insert a bit of citron to serve as a door.

give them of yourself. With this love, entertaining one or a dozen is no burden. The atmosphere is bound to be one of freedom, and such a hostess need never eat alone. I believe love is at the bottom of hospitality in its true sense.

A COUNTRY HOME AT TUXEDO PARK

(*Continued from page 379*)

Life at Tuxedo Park is of course essentially a life lived out of doors. A lake of considerable size offers opportunity for many forms of fresh water sport and during the Winter its smooth and glassy surface makes it the scene of much of the seasons gaiety. Motoring of course has many followers in addition to those who depend upon its fleetness of service to speed them to and from the city with its work and activity. The clubhouse is naturally the very center and soul of social life within the park gates, although of course each estate is the center of a smaller social life of its very own. The settlement is intended principally for those more or less prominent in the world of affairs and its success, represents, perhaps, the highest achievement of the country colony idea. Tuxedo Park has inspired the founding of many other home colonies, but no other offers more variety of surroundings or more of the activity and interest which constitute the chief charm of country living.

The influence of Tuxedo Park has been helpful and powerful in stimulating the movement toward the country which has been taking place in America during the past twenty years. First of all, its nearness to New York made easy, what may be called the "discovery" of the country by entering the original settlers into the hills and dales of its mountain fastnesses—there the beauty of its country and the great variety of out-of-door life which it offers made very plain the advantages it possesses and finally, the beautiful homes built within Tuxedo Park have had a stimulating effect upon country home architecture in every part of the country. This growth of country living has of course been wonderfully aided by the appearance and development of the automobile and the excellent roads which spread out in all directions, of course, the logical result of the motor's use and increasing popularity.

BANDBOXES OF OLDEN DAYS

(*Continued from page 385*)

the printed matter brought to light several pieces of interesting news. One announced that the celebrated East room of the White House "has been newly fitted up by General Jackson in a very neat manner, the paper a fine lemon color with a rich border, etc." Another news item described how two Baltimorians visiting in Liverpool "were amusing themselves riding on the Stevenson locomotive at the rate of twenty-eight miles an hour."

The history of bandboxes is yet to be written, so it is only through tradition, or the stories of old housekeepers, that facts relating to their use and manufacture come to light. From Jaffrey, Hannah Davis's home, many tales of the really clever old lady are told. That she was a good business woman is evident from the fact that, according to J. G. Townsend, Town Clerk, she not only made the boxes but cut the material as well.

"She bought spruce logs and had them hauled to her house," says Mr. Townsend, "then with a machine she put the logs in on end and sawed them up the right lengths. The machine which was worked by foot power, was fitted with a long knife which shaved off the wood in thin strips about one-eighth of an inch thick. These she used for the sides. For the top and bottom, the wood was cut to the thickness of one half inch; the covering hiding any flaws.

"All the boxes were oval in shape and nailed together, the sides being put on when damp and then scraped with a knife to smooth off any inequalities in the surface. They were then covered with fancy, bright colored wall or room paper, the inside and bottom usually being lined and covered with old newspapers.

"As the boxes were rather heavy and very serviceable, they were used as trunks, suit cases and leather bags are today, not for millinery purposes only. Many of them about here are as good as they ever were. It was the custom when traveling to cover them with bags of bright-hued chintz, polka-dotted calico or fancy material of the sort, for protection.

"After making up a stock of boxes, Hannah Davis then loaded them into a big wagon in Summer or a sleigh in Winter and started out, traveling all over this section, spending a week at a time, selling her wares. Her prices ranged from twelve and a half cents for the small ones up to fifty cents for the largest which was the size of a bushel basket."

It doesn't require any great stretch of the imagination to see the redoubtable Hannah, probably driving herself, surrounded with her kaleidoscopic wares, as she traveled along, stopping here and there to make a sale or to conceive the suppressed excitement her coming created in the breasts of the village belles. No quainter picture of olden times has come down to us. It lifts the curtain of the past for a fleeting glimpse of a popular vogue and it also serves to perpetuate the memory of a pioneer woman in industry, Hannah, the Maker of Bandboxes.

Doubtless the relic-hunter who cares to take the trouble to search through the dusty accumulations stored in old attics would come across many examples of these old-time bandboxes which have served the vicissitudes of half a century's neglect. A search would be fully worth while if even only one bandbox half as interesting as any bandbox in the Drake collection should be discovered. Even though they may appear in a dilapidated condition, a little careful cleaning will restore them to much of their original freshness.

LITTLE HOUSES FOR LITTLE PEOPLE

(*Continued from page 389*)

tators of the children. As has been already suggested a tiny garden about the playhouse would be a source of untold pleasure and instruction to a child. Nothing is more fascinating to anyone than to dig in the ground preparing the soil for a garden, then to plant the garden after one's own design and plan, and watch over it until at last it has reached its glorious fruition and has produced actual vegetables which may be eaten or flowers which may be enjoyed. All this experience might be part of the playhouse's lesson, for much experimenting with the ground and growing things, will teach lessons which the child might otherwise be years in reaching and which might never be so thoroughly learned. There is no more helpful way of teaching some of the lessons of life, than by allowing the children to have a little nook and corner of their own where their playhouse, small or large, may be surrounded by its little plot of ground. They will seize upon the opportunity of making a miniature home for themselves and their dolls, and in creating the little place and arranging and developing its house and little garden they will absorb just the lessons which are so difficult to learn from teachers or from books. Life in a playhouse may be said to be in a way a very tiny copy of life in the world and its pleasures and responsibilities may be reduced copies of the joys and sorrows of actual living. Then let these lessons be learned under the most happy and the most helpful conditions, so that the mere learning of them may be a pleasure ever to be enjoyed.

A MOTOR HOSPITAL

THE maneuvers of the sanitary department of the military government of Paris, which take place annually at the Gravelle camp, were unusually interesting this year. The exercises included the establishment of a rescue service by automobile, a relay ambulance service and a temporary hospital, in addition to curious experiments in training dogs to search for wounded men. The most striking characteristic of these maneuvers was the extensive employment of automobiles for the expeditious rescue of the wounded.

The most remarkable specimen of the new equipment is an automobile operating-room, in which surgical operations can be performed at the battle-front in conditions as favorable as those afforded by a hospital. Severe abdominal wounds, which are very common in modern warfare, cannot be operated upon properly by the ordinary field service, and in many cases the removal of the patient is equivalent to a sentence of death.

The new vehicle, which has a forty-horse-power motor capable of developing an average speed of twenty miles per hour, is furnished with all of the accessories and the latest improvements of a hospital operating-room. Its principal compartment, the operating-room proper, contains an improved operating table and a wash basin supplied with sterilized water. In front is a smaller compartment, containing the sterilizing apparatus and the electrical apparatus, which is operated by the motor, whether the vehicle is in motion or at rest.

A very ingenious arrangement enables the surgeon to locate the bullet accurately by the application of Roentgen rays. The operator, shielded from diffuse light by a photographer's hood, moves the fluorescent screen over the patient's body until the shadow of the bullet falls on a small hole at the center of the screen. By inserting a pencil in this hole the position of the shadow is marked on a sheet of translucent paper, ruled in squares, which is placed under the screen. The angle of observation is then altered slightly and the new position of the projection of the bullet is marked in the same way on ruled paper. From the distance between the two marks, the depth of the bullet can be obtained, by referring to a table computed in advance.

The operating-room also contains a complete trepanning apparatus, which is operated by a special motor. The vehicle carries an apparatus for sterilizing water by ultra-violet rays, for the use of the troops. The water is drawn from any convenient brook or pond by an electric pump.

A folding tent, for the shelter of patients before and after operation is attached to each side of the vehicle.

The employment of automobile operating-rooms of this sort would save many lives. In the recent war in Manchuria the mortality among the severely wounded was ninety per cent, because of the inadequate facilities for prompt operatory treatment. This mortality could probably be diminished by two-thirds by the use of automobile operating-rooms in which operations could be performed in perfectly aseptic conditions.

A JUBILEE OF THE UMBRELLA

ON August 12 it was 200 years ago that Jonas Hanway of London was born, who is credited with being the first person to use an umbrella. When first carried, the frame consisted of whalebone, covered with heavy oilskin, the whole weighing nearly ten pounds.

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Concrete Pottery and Garden Furniture

By Ralph C. Davison

THIS book describes in detail in a most practical manner the various methods of casting concrete for ornamental and useful purposes. It tells how to make all kinds of concrete vases, ornamental flower pots, concrete pedestals, concrete benches, concrete fences, etc. Full practical instructions are given for constructing and finishing the different kinds of molds, making the wire forms or frames, selecting and mixing the ingredients, covering the wire frames, modeling the cement mortar into form, and casting and finishing the various objects. Directions for inlaying, waterproofing and reinforcing cement are also included The information on color work alone is worth many times the cost of the book. With the information given in this book, any handy man or novice can make many useful and ornamental objects of cement for the adornment of the home or garden. The author has taken for granted that the reader knows nothing whatever about the subject and has explained each progressive step in the various operations throughout in detail.

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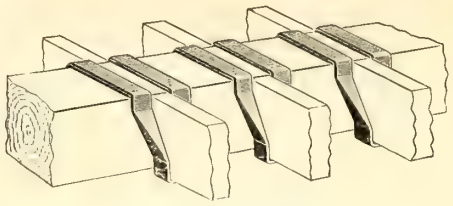

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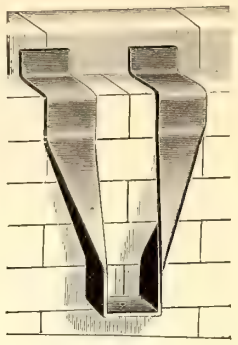

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AMERICAN LIBRARIES AND IMMIGRANTS

HOW the American public library strikes an immigrant, or at least how it struck one immigrant from Russia eager to enjoy the blessings of American citizenship," says the *Dial*, "may be gathered from a passage in the penultimate chapter of Miss Mary Antin's autobiography, parts of which have been appearing in the *"Atlantic"* as a preliminary to its recent publication in book form under the title of *The Promised Land*. Of the book-hungry little alien we read in her own glowing words: 'Off toward the northwest, in the direction of Harvard Bridge, which some day I should cross on my way to Radcliffe College, was one of my favorite palaces, whither I resorted every day after school. A low, wide-spreading building with a dignified granite front it was, flanked on all sides by noble old churches, museums, and schoolhouses, harmoniously disposed around a spacious triangle called Copley Square. Two thoroughfares that came straight from the green suburbs swept by my palace, one on either side, converged at the apex of the triangle, and pointed off, across the Public Garden, across the historic Common, to the domed State House sitting on a height. It was my habit to go very slowly up the broad steps to the palace entrance, pleasing my eyes with the majestic lines of the building, and lingering to read again the carved inscriptions: *Public Library—Built by the People —Free to All*. . . . Here is where I liked to remind myself of Polotzk, the better to bring out the wonder of my life. That I who was born in the prison of the Pale should roam at will in the land of freedom, was a marvel that it did me good to realize. That I who was brought up to my teens almost without a book should be set down in the midst of all the books that ever were written, was a miracle as great as any on record. That an outcast should become a privileged citizen, that a beggar should dwell in a palace—this was a romance more thrilling than poet ever sung. Surely I was rocked in an enchanted cradle.' Even the world-weary and the *blasé* will catch something of the enthusiasm, of the exultant joy of living, that breathes in every page of 'The Promised Land.'"

ITALIAN FIG-GROWING

THE season for gathering the figs in Italy," says a writer in the New York *Sun*, joins hands in October with the vintage; but it really begins in August, owing to a curious system of culture. Early in August the fig gatherers squirm through the twisting branches from tree-top to tree-top and "oil the fruit." These fig people are nomadic; they appear and disappear like the wandering harvesters of France. Late in July the masserie are rented to them, a stated sum being paid to the proprietor, a payment that gives to the fig gatherers the right to all the fruit, beginning with the figs and ending with the last cluster of grapes. Rude huts thatched with straw are built by the proprietor in all his orchards, and in these the gypsy-like harvesters live with their families. Sometimes they supplement their narrow quarters with a ragged tent. Three sticks placed crosswise and a kettle in the crotch constitute the kitchen. Shortly after their arrival the work of forcing the fruit is begun. The methods employed are curious. In one a wad of cotton is dipped in olive oil and gently rubbed on the flower end of the fig. Fig by fig is thus treated, and in eight days the fruit is ready for the market.

Another method consists in gathering in the spring the half formed fruit, which is strung on ropes. These ropes or garlands are thrown over the branches of the tree and are allowed to decay under the burning sun. There is born of this decay an insect that pierces the growing fig and induces rapid maturity. The fig, when perfectly ripe, exudes a drop of honey sweet juice at the nether end, which never falls but hangs there, a standing temptation to children and to bees. When fresh picked at this stage the fig has a rich flavor entirely lost in the dried fruit.

PICKING AND STORING APPLES

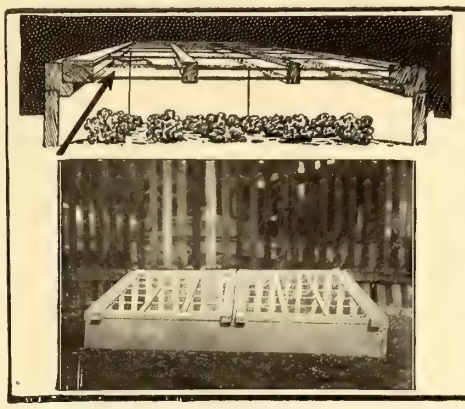
IF apples are to keep well, they must be picked carefully. A bag or a padded basket should be used to receive the fruit and the apples should be unjointed at the fruit spurs. If the stem is pulled out or the skin otherwise broken, decay will soon set in. In the home orchard, the fruit should be left on the trees until well colored. When the apples are just beginning to soften, they are ready to be picked.

Care must be exercised in barreling the apples, even for home use, if they are to keep well. All imperfect or bruised specimens should be rejected and the others placed in the barrel carefully. Then the fruit must be kept in a cool place. Generally the cellar is too warm at first; it is better to choose a sheltered place out of doors and to keep the apples there, protected from rain, until freezing weather approaches. Extra fine specimens for Winter eating may be secured by storing them in barrels of sawdust.

ESKIMO DOGS FOR THE MARKET

AT Grove Park, one of the suburbs of London, a very interesting dog farm is conducted by an Englishwoman. Her specialty is Eskimo dogs, which she breeds and trains for the market. The market is not very large, but it is sufficient to make it worth her while to raise and train the best possible Eskimo dogs. It is not the food market, nor the ordinary dog market. It is the market for Eskimo dogs which are trained for Arctic exploration. If you decide to make a journey to one of the poles, you know that Eskimo dogs are absolutely essential. You can get good Eskimo dogs in Greenland, or in Alaska. But the good dogs in Greenland may not be exported except by special permission of the Danish government; and the good dogs in Alaska are not so good. One trouble with ordinary Eskimo dogs is that they have no breeding and no discipline. They will obey the master with whom they have been brought up, but when they start after fish or other game, even their master can control them only by the exercise of brute force. For the purposes of your exploration you need dogs that will obey orders given by a white man, dogs that are broken to the harness and are not afraid of work, dogs that have learned team work.

It is this kind of dog that is bred in the Grove Park kennels for the market. These kennels have only pure-blooded animals of carefully selected stock, and from earliest puppyhood she trains them in how to eat and how to work. When the owner gets through with an Eskimo dog the animal is not nearly so ferocious as one that just "growed up" in the surroundings of an Eskimo village. They adapt themselves quickly to new masters, and they have acquired good eating manners, so that they are not so likely to attack the cupboard of fresh game.



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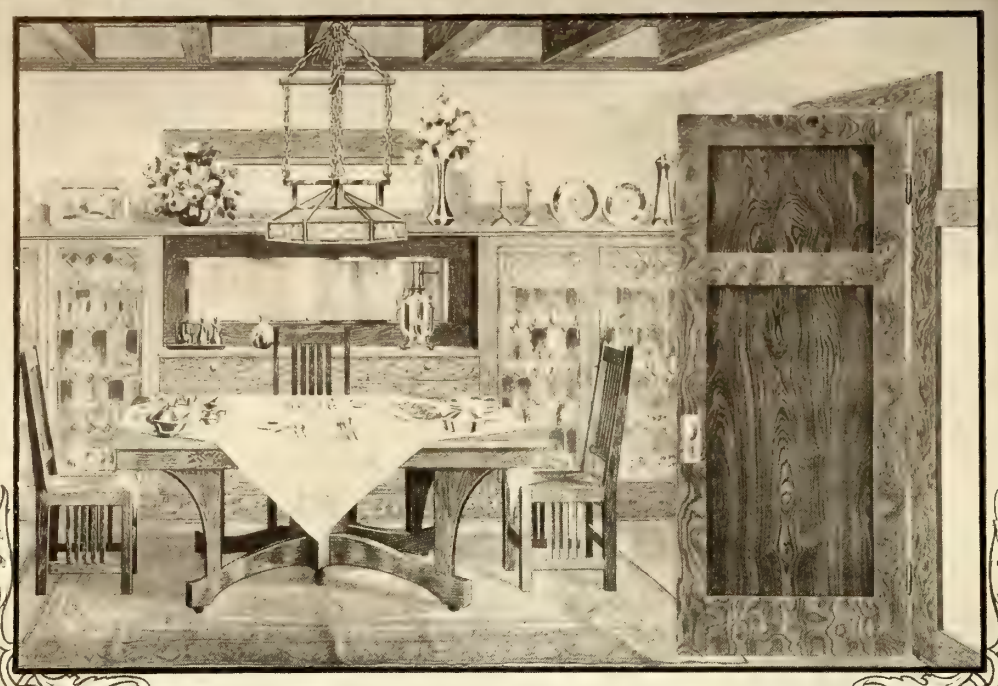

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MODERN TURKISH LITERATURE

AN interesting guide to the tendency of modern Turkish ideas and thought may be had from a perusal of the lists of new publications in the Turkish language. says U. S. Consul Edward I. Nathan of Mersina. One will at once observe the large number of translations and adaptations of European scientific and literary works and books of a popular nature. There are treatises on medicine, surgery, law, chemistry, physics, military science and even aeronautics. There is also a large number of independent publications by Turkish authors on these and other modern topics. Textbooks for use in Turkish schools are prepared to meet the needs of a modernized curriculum. Instead of merely reading the fables and historical stories, excellent though they be, the modern Turkish schoolboy uses graded reading books prepared in accordance with the latest pedagogic ideas.

Standard works of European literature are being translated into Turkish, and modern popular novels, principally French, have a large sale. Of purely American literature little has yet been translated, but the American detective stories are finding great favor among Turkish youth.

There is also a growing modern Turkish literature which aims to foster Turkish patriotism and love for the Osmanli language. Several illustrated magazines are published regularly. The "Servet-i-funnun" (Riches of Knowledge) and the "Turk-Yurdo" (Turkish Heart) are the principal periodicals. Both are well illustrated with photographs and contain articles on current events as well as on literary topics. Excellent new editions, well illustrated, of some of the Turkish classics are also published to retain the interest in these works.

IN war times down South, says the New York *Times*, it was the habit of the women to say that coffee made from okra, wheat, rye, or sweet potatoes was really better and more like coffee than real coffee. That was a wholly patriotic thing for them to say, in the circumstances, and helped to relieve the situation.

A case was recently decided by one of the French courts which shows how Nature may be employed in aid of an imitation that can, nevertheless, be detected. A grocer arrested for selling honey without the distinguishing label required by statute was tried and convicted and fined 25 francs. The honey he sold was made by the bees, not from the natural nectar gathered from the flowers but from sugar upon which they had been fed by the keeper.

It was contended that this honey, although made by the bees, working as hard as they could all day long, was artificial, or, as identified by the court, was "miel de fantasie," or, as The Westminster Gazette translates it, "synthetic honey," or, as the Americans would say, "near honey." Chemically, it was not the levulose of flowers that bloom in the Spring, but just cane sugar beeswaxed!

"MILK FOR SALE"

A TORONTO family had milk to sell and the little girl of the family was told she could have the milk money if she would write the advertisement, relates the Toronto *Republican*. This is what she wrote: Milk for sale, by a little girl with brown eyes and a pink dress.

PROTECTION FOR THE SPONGE

IN view of the attention which has been given to the protection of seals in the northern waters, it may be of interest to note action that Congress is taking to protect a product of the tropic seas—the ordinary sponge of commerce.

It might be a matter of as much economic distress—if not more—to have the sponge of universal use exterminated as would be the case if the seals were eliminated. Anyway, Congress has taken alarm and the Senate committee on fisheries has reported out a bill already passed by the house, to prevent illegal fishing in Florida and gulf waters, and at the same time extend the open season for the catching of sponges. Probably not more than one person in a thousand has known that there was such a thing as an open and closed season for sponges, but such is the fact.

Although permitting a larger catch of sponges than has been possible in the past protection is to be afforded for young sponges than has been possible in the past, until they are at least five inches in diameter.

THE SHRINKAGE OF EIFFEL TOWER

M. GUILLAUME, according to a correspondent of the New York *Times*, describes at length in *The Matin* his apparatus for measuring the vertical lengthening or shrinkage of the Eiffel Tower.

To a stake driven into the ground at the foot of the tower is fixed a wire consisting of a certain alloy of iron and nickel, which is incapable of expansion or shrinkage. The other end of the wire is carried up and attached to the end of the lever projecting from the second platform. The free end of the lever is in contact with a Richard register, and in this way every vertical movement of the tower is automatically and instantaneously registered. At the end of each day the diagram is removed and preserved.

"These diagrams reveal the sensitiveness of the tower, says M. Guillaume. "A passing cloud, a blast of wind, a sudden burst of sunshine, leave their mark in a more or less rapid ascent or descent of the mighty structure, and when a heavy shower falls the 116 meters of iron shrink abruptly into themselves."

This "abrupt shrinking" is an instance of picturesque imagination on the part of M. Guillaume, for the greatest variation in the height of the tower amounts to only a little over an inch. The writer goes on:

"Normally the tower begins to rise and stretch itself at sunrise, and continues its upward movement till the middle of the afternoon. The susceptibility of these 7,000 tons of iron to changes of temperature is due, of course, to the ease with which the wind blows through its trellis-work or rods."

"Measurements taken by the geographical section of the army show that even in a gale of wind blowing ninety miles an hour, the oscillations of the summit scarcely amount to four inches. In addition to this, there is a certain quantity of twisting or torsion due to the unequal heating by the sun of different sides of the structure. In some cases eight inches of torsion have been measured."

THE lemon and orange crop of Tripoli in Syria is estimated by the British consul at 500,000 to 525,000 cases, as compared with 370,000 cases in 1911. Shipments all go to Odessa and Constantinople.

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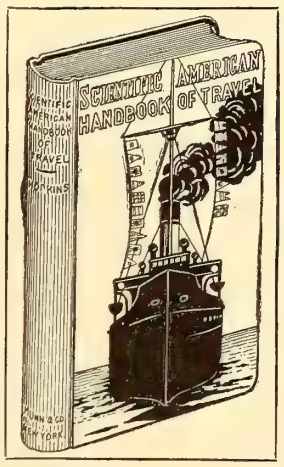

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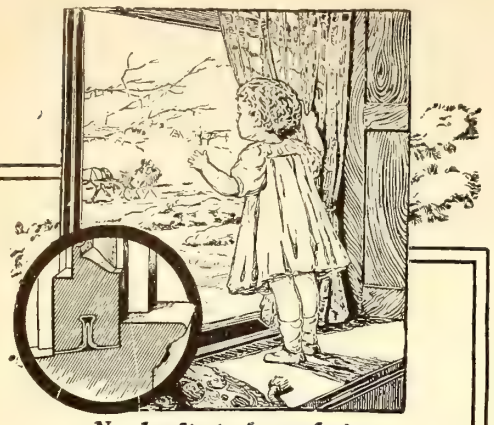

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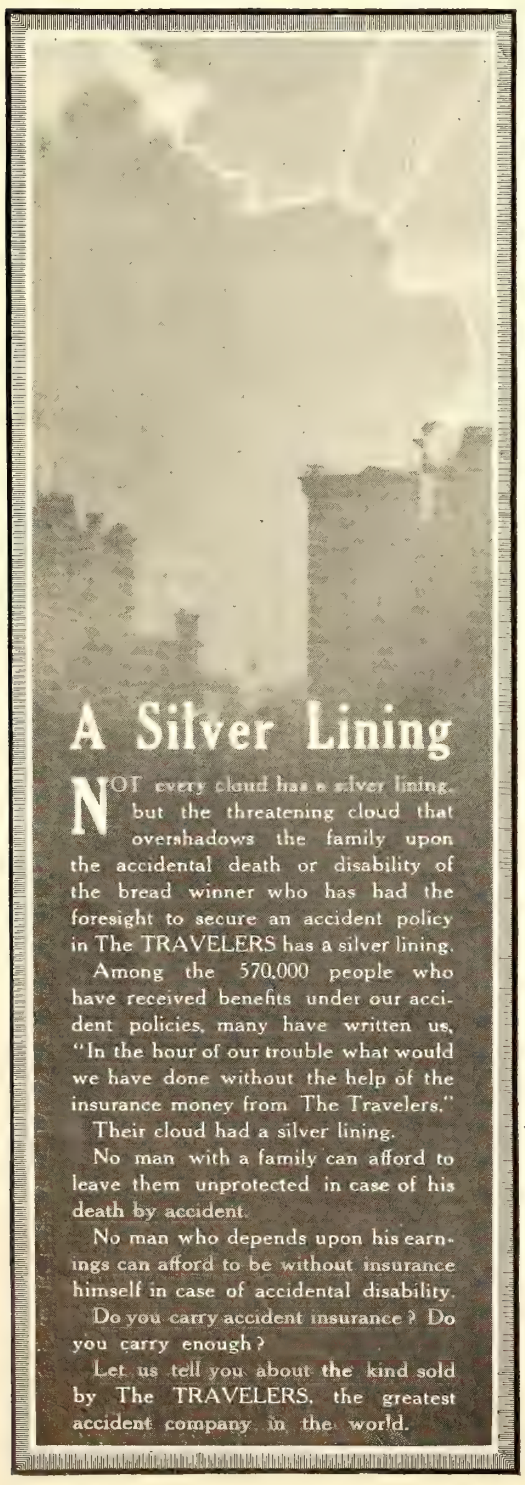

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NEW BOOKS

DOWN TO DATE POULTRY KNOWLEDGE. By F. W. DeLancey, assisted by T. D. Sutton. Sellersville, Pa. Poultry Fancier Publishing Company. 1912. Paper. Octavo. 64 pp. Price, 50 cents.

The title of the book has been rightly chosen and emphasizes the fact that without knowledge of the poultry business the chances of making a success are small. The teachings are both applicable to fancy and utility poultry breeders. The writer's knowledge seems to be complete, and he has written the book in a manner which makes it easily understood by the layman. The book will enable those about to start in the poultry business to start rightly, and those already in the business to steer clear of breakers and ultimately build up a successful business.

SMOKE. A Study of Town Air. By Julius B. Cohen, Ph.D., B.Sc., F.R.S., and Arthur G. Ruston, B.A., B.Sc. New York: Longmans, Green & Co., 1912 8vo.; 88pp. Price, $1.40 net.

"Smoke" constitutes a real study of a real problem, and not a mere loose discussion of a wide-spread nuisance and menace. The work issues from Leeds, England, and the frontispiece is a most impressive view of the industrial section of that city, showing its many belching stacks and fuming chimney-pots. Smoke is deleterious in three ways—it injures vegetation, it disintegrates stonework, and it is detrimental to health. These heads ignore its condemnation on purely æsthetic grounds. The work is essentially a collection of facts and figures, drawn from observations extending over a period of twenty years.

MOLDING CONCRETE FLOWER POTS, BOXES, JARDINIÈRES, ETC. By A. A. Houghton. New York: The Norman W. Henley Publishing Company. 1912; Paper; 16mo.; Illustrated; 52 pp.; Price, 50 cents.

MOLDING CONCRETE FOUNTAINS AND LAWN ORNAMENTS. By A. A. Houghton. New York: The Norman W. Henley Publishing Company. 1912; Paper; 16mo.; Illustrated; 56 pp.; Price, 50 cents.

The molds for producing many original designs of flower pots, urns, flower boxes, jardinières, etc., are fully illustrated and explained, so the worker can easily construct and operate the same. A new method of making plaster molds with the formulæ for the compound, which has all the smoothness of a glue mold and is very durable, and which enables many casts to be made from the one mold, is fully described.

The easily built molds for constructing a number of designs of concrete fountains that are fully illustrated and described in this treatise, enables the concrete worker to produce many beautiful effects in the most simple and easy manner.

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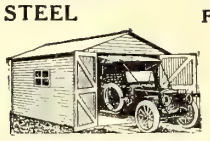

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HEREDITY AND EUGENICS. A Course of Lectures Summarizing Recent Advances in Knowledge in Variation, Heredity and Evolution and its Relation to Plant, Animal and Human Improvement and Welfare. By William Ernest Castle, John Merle Coulter, Charles Benedict Davenport, Edward Murray East, and William Lawrence Tower, Chicago: The University of Chicago Press, 1912. 8vo.; 315 pp.

The lectures of which this book is composed were given at the University of Chicago in 1911, under the auspices of the Biological Department. The purpose was to present the recent developments of knowledge in reference to variation, heredity and evolution, and the application of this new knowledge in plant, animal and human development and improvement. Anyone at all familiar with the subject must recognize that the men who delivered these lectures stand foremost among American students of evolution and heredity. Couched, on the whole, in an easily understood style, the lectures in book form will appeal to a wide audience interested in the progress of genetics as a matter of information as well as of study.

LEGENDS OF INDIAN BUDDHISM. By Winifred Stephens. New York: E. P. Dutton & Co, 1911. Cloth; 16mo.; 128 pages. Price, 60 cents net.

In the number of its adherents and in the area of its prevalence, Buddhism surpasses any other creed; and its existence through twenty-four centuries entitles it to historical consideration at least by reason of its being one of the most venerable forms of belief extant. For this reason the volume on "Legends of Indian Buddhism" should find the many appreciative readers it deserves.

RECONSTRUCTION AND UNION. 1865-1912. By Paul Leland Haworth, Ph.D. New York: Henry Holt & Co., 1912. 16mo.; 255 pp. Price, 50 cents net.

Prof. Haworth has a trick of writing history with journalistic crispness and vigor, and the most exacting reader could hardly call his story of reconstruction dull. He really transmits a very sharp impression of actual conditions at the close of the war, of the efforts made to deal with the problems left in the wake of that war, and of subsequent puzzles and responsibilities arising from the war with Spain and the acquisition of the Philippines. He has also something to say of the "golden age of materialism," and he outlines the revolt against plutocracy which brings us to the present year of the Republic.

THE WIDTH AND ARRANGEMENT OF STREETS. A Study in Town Planning. By Charles Mulford Robinson. New York: The Engineering News Publishing Company, 1911. 8vo.; 199 pp.; illustrated. Price, $2 net.

The author has been a close student of town planning, and has had exceptional facilities for observation and the interchange of ideas, both here and in Europe. He is not an illogical extremist, either from the artistic or the utilitarian point of view; he does not, for example, unqualifiedly endorse the standardization of thoroughfares. Private interest has been given its share of consideration together with public welfare. The problem of transportation is treated with the respect due to its gravity. In short, the writer seems to have overlooked few of the factors necessary to the wise planning and artistic treatment of the city lay-out.

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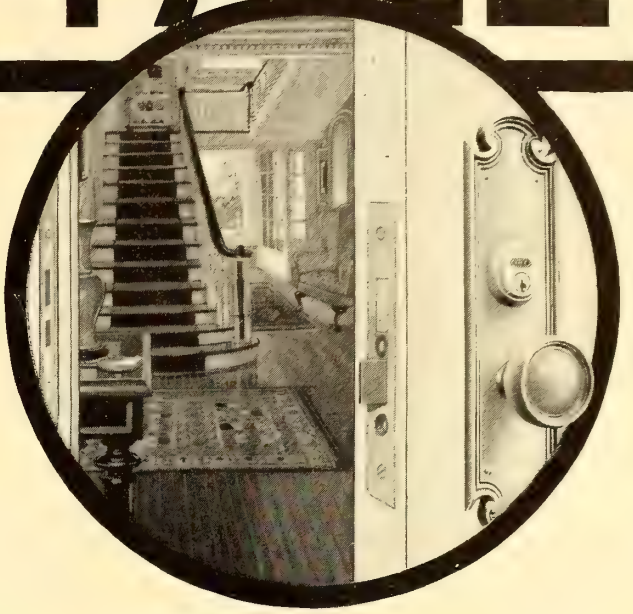

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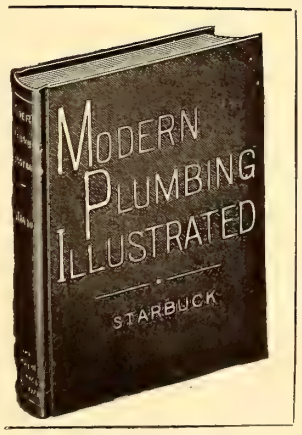

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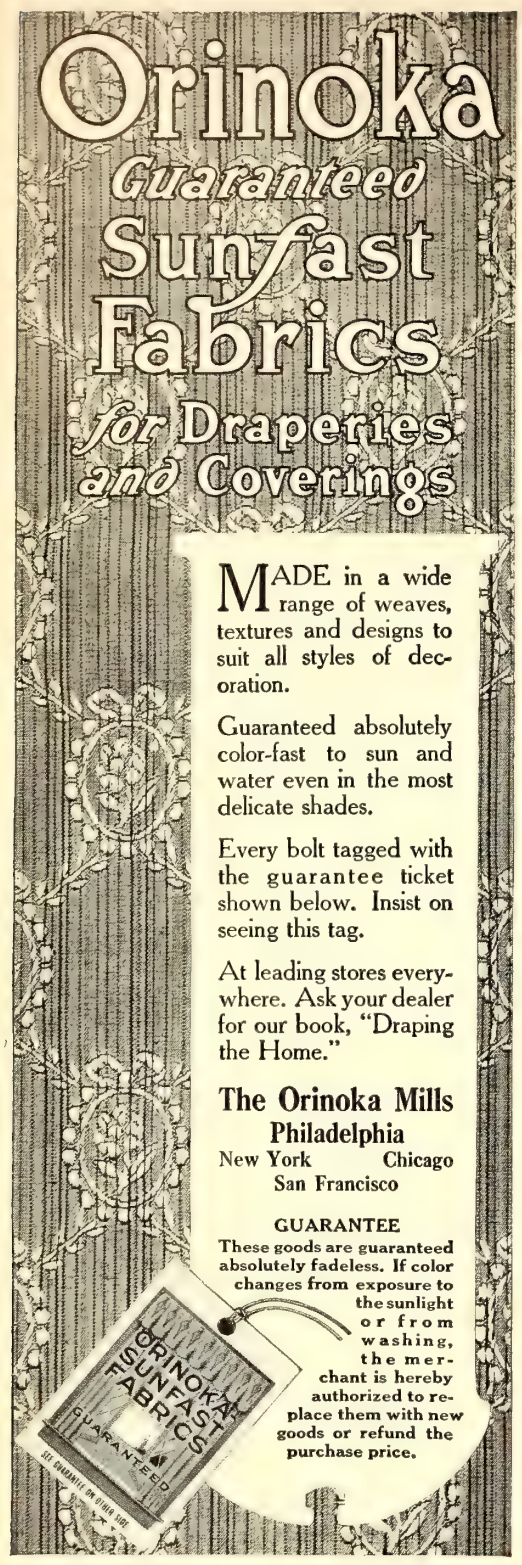

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THE MANSIONS OF ENGLAND IN THE OLDEN TIME. By Joseph Nash. New York: The Bruno Hessling Company, 1911. Quarto; 104 plates. Price, $10.

The familiar title page of Nash's great book brings to mind the ponderous folio which has been an inspiration to many writers of fiction with a historical background. The original book was very expensive, and copies to-day bring a very high price. The reproductions, especially those in color, are very adequate and furnish a good substitute for the original book. There is an excellent reproduction of Levens, showing the curious examples of topiary art. The interior views of the same palatial residence are very fine. The book is a highly attractive one, and should be in the possession of every architect as well as those who are fond of England in the days of old.

THE SPELL OF HOLLAND. The Story of a Pilgrimage to the Land of Dykes and Windmills. By Burton E. Stevenson. Boston: L. C. Page & Co., 1911. 8vo.; 395 pages. Illustrated. Price, $2.50.

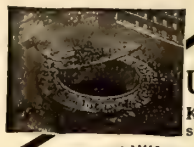
At the gateway of "Hollowland" the customs officer, scorning to be bound by the conventional "Tobacco or spirits?" asks if you have any candy or cakes to declare. This is an indication of the deliciously quaint habits and modes of thought that obtain in this quaint and delicious country. Mr. Stevenson's narrative is alive with humor. Every page has a twinkle in it, and some have two or three. On finishing the book one hardly realizes the amount of worthwhile knowledge one has acquired, for it has been gained with such smiling ease. The frontispiece shows a typical bit of Netherlands scenery with its vari-colored walls and sleepy waters. A folding map traces the author's route, and fifty full-page plates are the product of his busy camera, to which, in spite of its finder pointing too low, the reader owes a debt of gratitude.

THE ROMANCE OF AERONAUTICS. By Charles C. Turner. Philadelphia: J. B. Lippincott & Company. 1912. Cloth. 8vo. Illustrated. 314 pp. Price, $1.50 net.

Like other sciences that of aerial navigation has its many interesting anecdotes which have given the author of this interesting and well written volume an opportunity of meeting the requirements of his title. The twenty-nine chapters are, every one of them, worth while and the book should be in the hands of everyone interested in man's attempt to achieve aerial flight.

THE ENGLISH LANGUAGE. By Logan Pearsall Smith, M.A. New York: Henry Holt & Co., 1912. 16mo.; 256 pp. Price, 50 cents net.

To most people, even to educated people, their own language is something that is taken for granted, like the possession of a heart, lungs, and other bodily organs. This is not a desirable condition of affairs, and those who take the trouble to read "The English Language" may no longer be criticized under this head. It tells us of the origins and elements of the language we speak, details the processes of word-making, and considers the history of the mother-tongue under three periods—the early, the middle ages and the modern. There is an interesting application of the knowledge of the age of words to detecting forgeries of old manuscripts. Condensed as the work is, it makes the reader conversant with the general and historic facts of philology and, for those who would go further in the fascinating study, a bibliography of more advanced works is appended.



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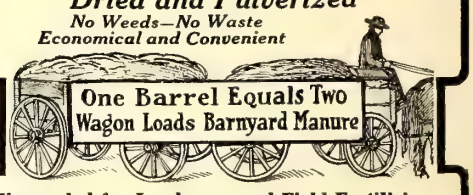

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WHO'S WHO IN SCIENCE. 1912. Edited by H. H. Stephenson. New York: The MacMillan Company. 1912. Cloth, 8vo. 323 pages. Price, $2.50 net.

The Sciences represented in this book take no account of those branches of knowledge which lie on the borderland between Science and Humanities, between the Objective and the Subjective. Thus the student will find omitted in its consideration Economics, Sociology, Psychology, Education and Exploration, which the editor considers is more a matter of boundaries than of biology. While a rigid subdivision of knowledge is impossible, and, indeed unserviceable, Mr. Stephenson has carried out in arrangement an excellent and valuable volume that should be among the reference books of every private and public library.

LAMPS AND SHADES IN METAL AND ART GLASS. By John D. Adams. Chicago: Popular Mechanics Company, 1911. 12mo.; 114 pp. Illustrated. Price, 50 cents.

A very fascinating field of activity is opened up through the pages of this little handbook, and those who are interested in such work, either for the beautifying of their own homes, for presents to others, or as objects of sale, will find explicit directions for some artistic pieces. Built-up, soldered, etched and sawed shades are all treated of, and eighteen complete designs are offered.

EARTH FEATURES AND THEIR MEANING. An introduction to Geology for the Student and the General Reader. By William Herbert Hobbs. New York: The Macmillan Company, 1912. 8vo.; 506 pp. Price, $3 net.

There has been room for considerable time for a thoroughly modern book on geology, which should contain the modern concepts of the science conveyed in easily understood terms and well illustrated. The author seems to have produced an ideal book in many ways. It is finely illustrated by 493 maps, plans and illustrations, the most interesting of which are those which show the development of topographical maps and graphic representation of physical phenomena by simple means. The study of geology is an excellent discipline for the mind and is of service even to those who never put the knowledge to practical use. Far more than in former years the American travels afar by car or steamship and the earth's surface features in all their manifold diversity are thus one after the other unrolled before him. The thousands who each year cross the Atlantic to roam through European countries, prepare themselves by historical, literary and artistic studies to derive exquisite pleasure from their visit. Yet the Channel coast, the gorge of the Rhine, the glaciers of Switzerland, and the wild scenery of Norway or Scotland, have each their fascinating story to tell of a history far more remote and varied. To read this history, the runic character in which it is written must first of all be mastered; for in every landscape there are strong individual lines of character, such as the pen artist would skillfully extract from an outline sketch.

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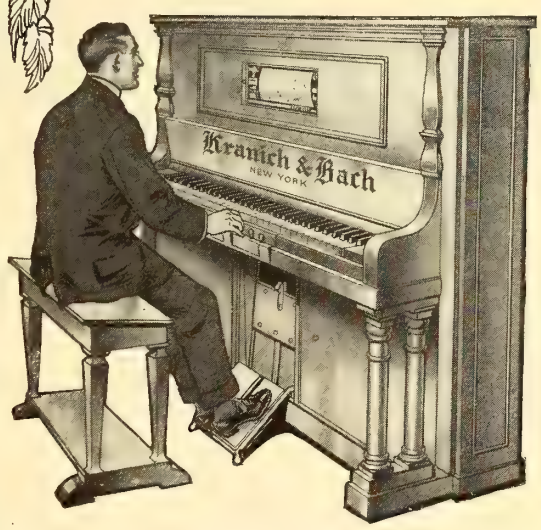

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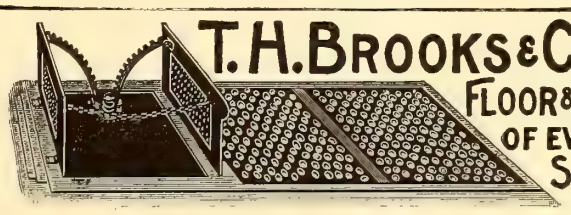

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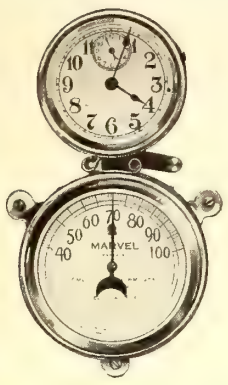

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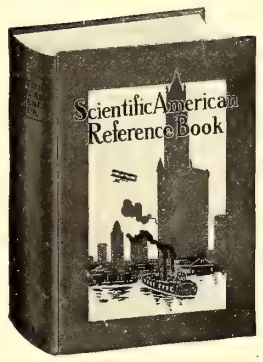

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fere with its use by the general reader, who has real need for a book which may be read intelligently by all who are in any way interested in science in general. The chapters deal with a Compilation of Earth History, the Figure of the Earth, The Nature of the Materials, The Contortions of the Strata, The Fracture Superstructure, Earth Movements, The Rise of Molton Rock, The Attack of the Water, The Life History of Rivers, The Travels of Underground Waters, The Forms Carved and Molded by Waves, Coast Records of the Rise or Fall of the Land, The Glaciers of Mountain and Continent, Land Sculpture, Lake Basins, Origin and Forms of Mountains, etc.

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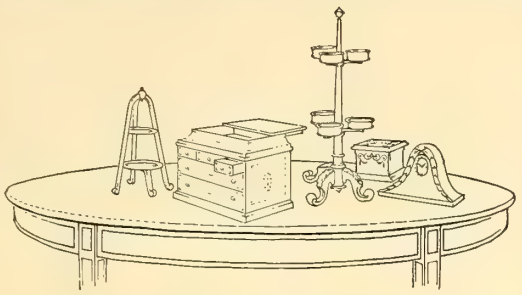

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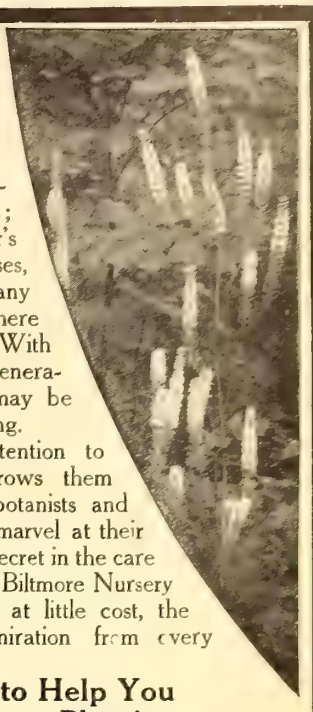

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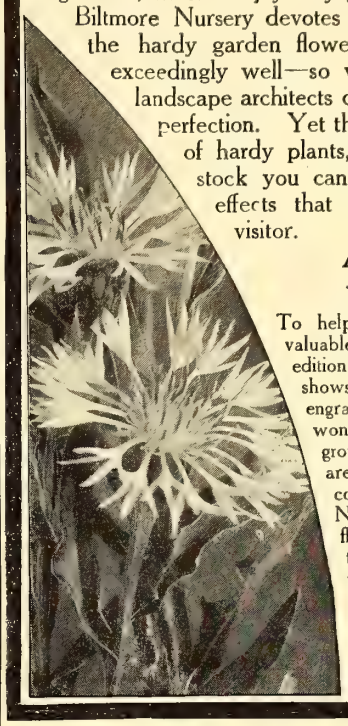

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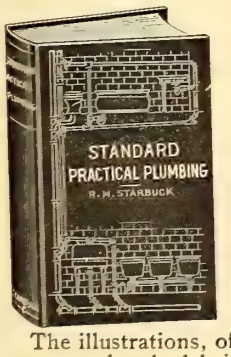

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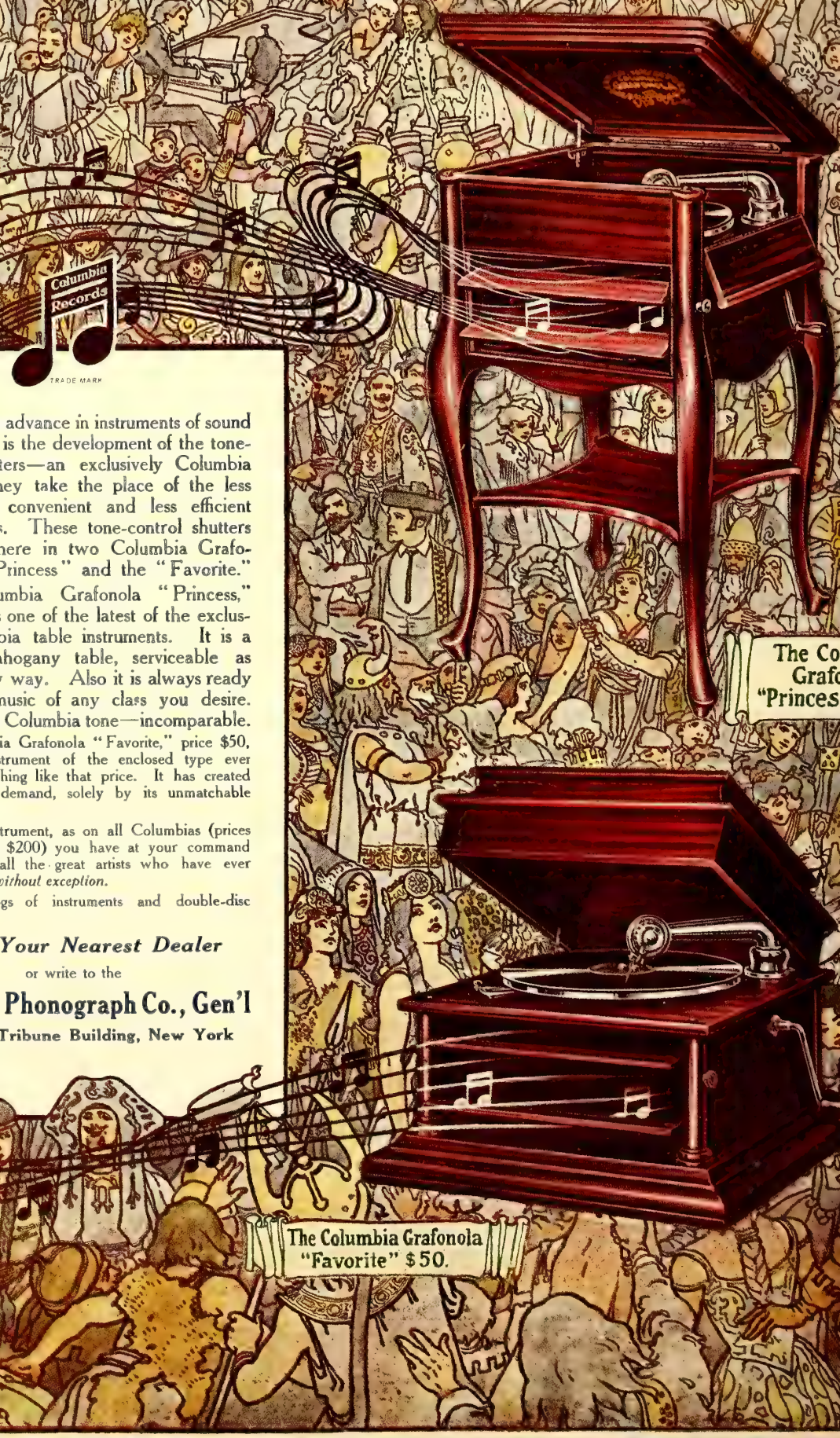

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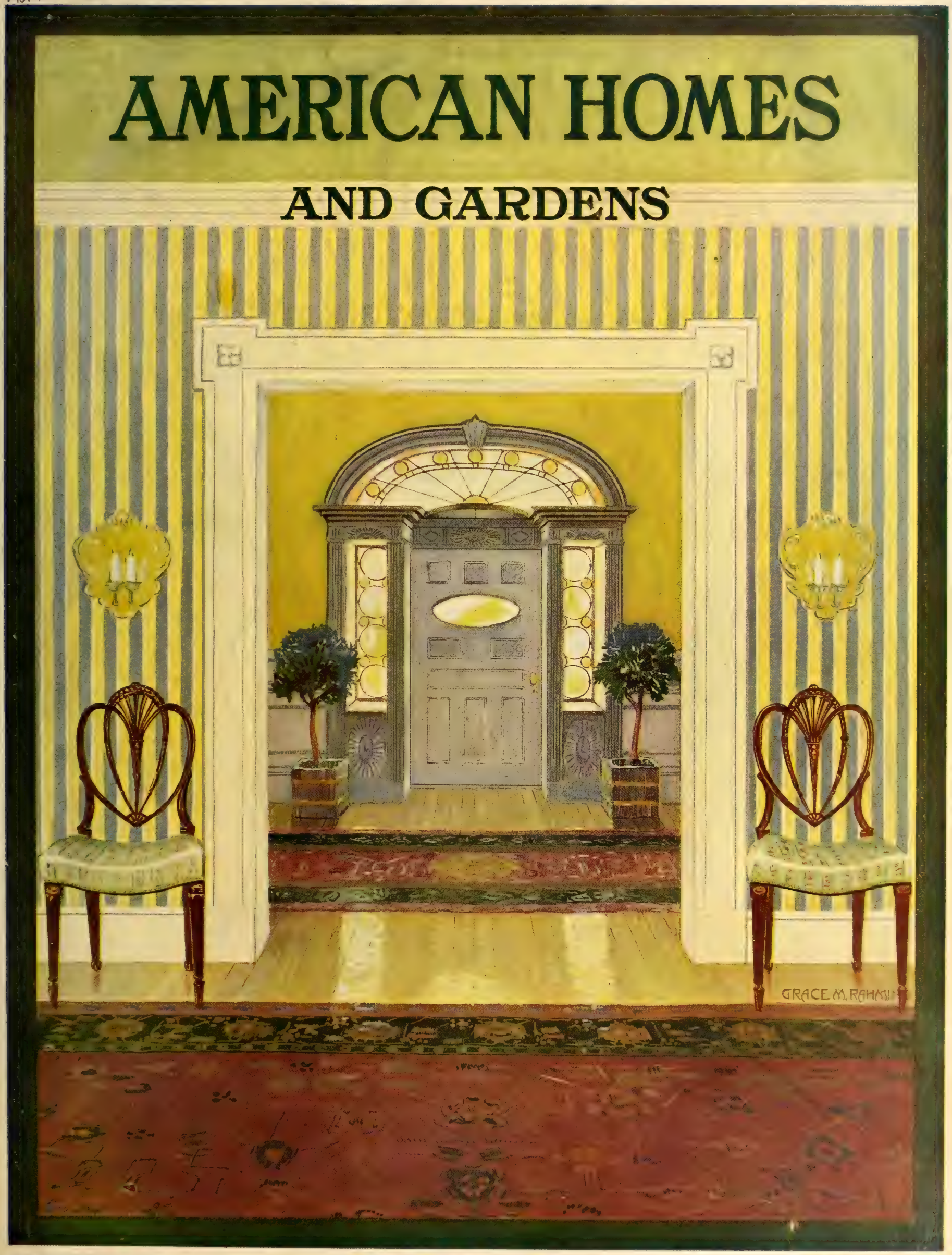

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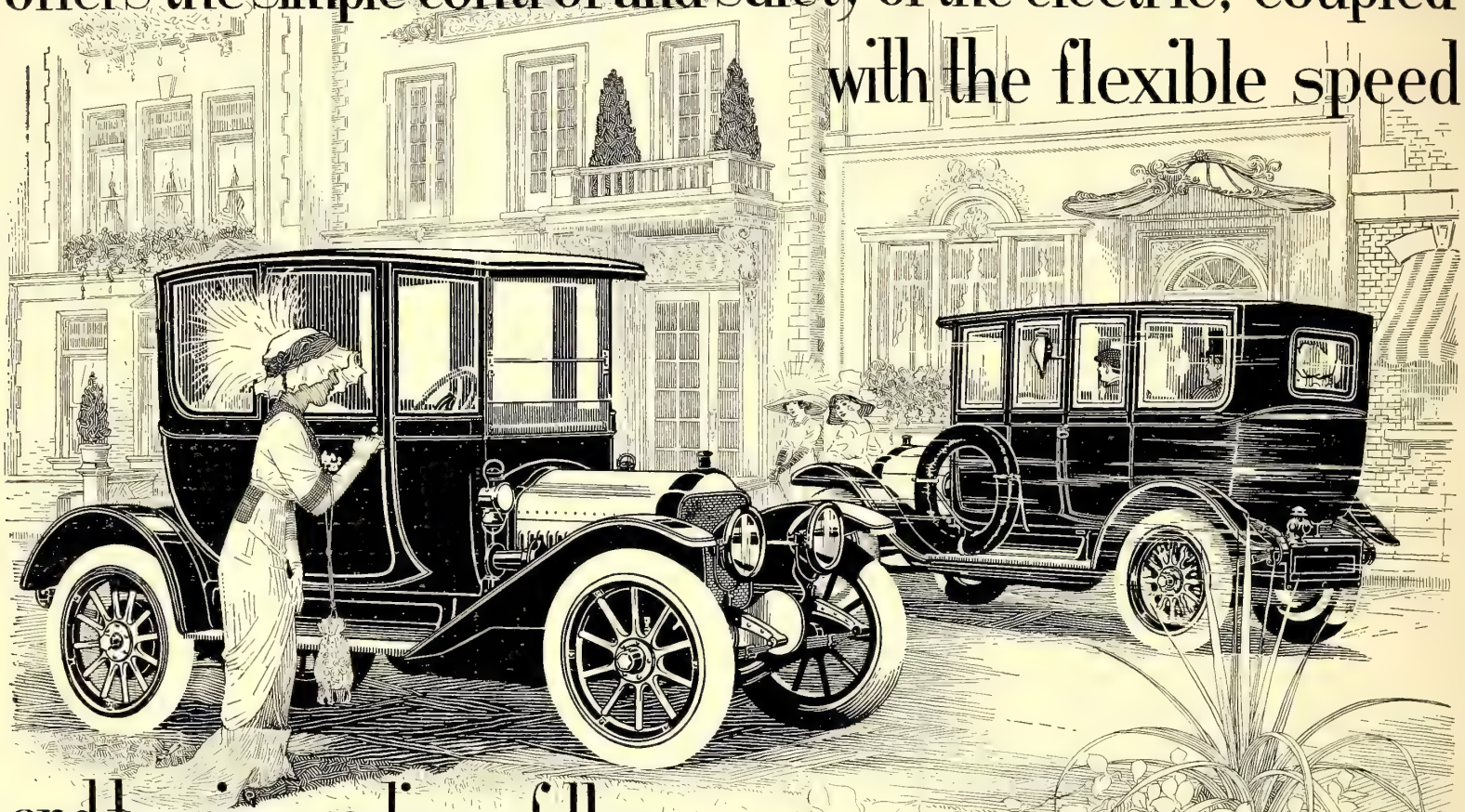

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THE "FANCY" FOWLS

By E. I. FARRINGTON

WHAT are commonly called the "fancy" breeds are not, of course, the only breeds which are kept by fanciers. On the contrary, such birds as the Plymouth Rocks, the Rhode Island Reds and the Leghorns, which cackle in thousands of backyards all over the country, appear in larger numbers at the poultry shows than those which are classed as strictly "fancy."

The latter are bred by people who are concerned more with the ornamental than with the utility qualities of their hens—people who are fond of the unusual and even the bizarre. Some of the most attractive fowls known in this country are included among the less conventional breeds, so that there is good reason for raising them, apart from any mere desire to be unconventional. Some of them, too, are excellent layers.

Often the owners of large estates keep a few pens of these fancy birds in addition to a flock of utility poultry. In the vicinity of Boston, the Hamburg breed is in particular favor among wealthy fanciers and the list of entries at the Boston Show is sure to contain several names familiar in fashionable society.

The Hamburgs are small and stylish. Incidentally they are prolific layers of white eggs, but they are rather lacking in vigor and do not like close confinement, so that while the utility poultryman admires their beauty, he soon passes on to a more profitable breed. Their name doubtless was adopted from the seaport city, although they were long known in England as the "Dutch Every-Day Layers." Probably the Silver-Spangled and the Golden-Spangled are the varieties most frequently reared, although there are also Golden-Penciled, Silver Penciled, White and Black varieties. The Blacks are much in favor among fashionable breeders.

The White-Faced Black Spanish is an interesting fowl and probably the oldest of the non-sitting breeds. Unfortunately, it has been the subject for breeding experiments so long that its constitution has been weakened as a result of efforts to develop certain fancy points desired. The birds are now rather delicate and fertility of the eggs is low. No one would choose them for practical purposes alone, but they will give a fair return in eggs for the care which they receive and a much larger return in satisfaction to the eye. While the plumage is glossy black the face is white, so that they have an unusual and striking appearance.

Still another highly ornamental fowl is the Polish in several varieties—White Crested Black, Silver, Bearded Golden, Bearded Silver, Buff Laced, Blue and plain White. As may be inferred from this multiplicity of varieties, the fanciers have exercised their skill on this breed for generations. The most prominent characteristic of the Polish fowl of both sexes is a large and handsome crest,

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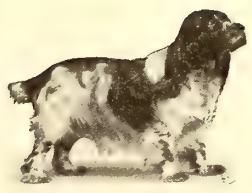

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which often obscures the peculiar V-shaped comb. Contrary to general belief, these birds did not get their name because of any connection with the country of Poland, but rather because of the poll on the top of the head. The hens lay white eggs and a considerable number of them, and although the skin is white and the legs dark, the flesh of a Polish chicken is particularly fine in grain and flavor. The breed is somewhat delicate and is easily affected by dampness, but endures confinement well and is worth the attention of amateurs who lean toward the unconventional.

Blue fowls are rare, and for that reason the Blue Andalusians are certain to attract attention wherever seen. They came originally from Spain and are hardy, of fair size, prolific egg producers and easy to keep. They are not unsatisfactory as practical egg fowls, and by some people might not be classed as "fancy" at all. Still, they are seldom seen on utility plants, although a blue bird is occasionally found in farmers' flocks. They are better adapted to European conditions, for they have white skin and dark shanks. They lay white eggs of satisfactory size and are termed non-sitters, although it is not unusual for a hen to manifest a broody tendency.

The blue of the Andalusian is not of so deep a tint as one might be led to expect. The plumage is really a bluish gray or dove color, but the shade varies on different birds. The fowls of both sexes are very neat and trim in appearance and it would be difficult to find a more attractive looking bird—provided one has a liking for the exceptional color. The face is red and the ear lobes white, giving the interesting combination of red, white and blue. I like to linger over this breed, because it is quaint and interesting and at the same time hardy, friendly and able to pay for its keep in eggs.

The games in several varieties are popular with fanciers and at the last Boston show Black Breasted Red Games, Brown Red Games, Golden Duckwing Games, Silver Duckwing Games, several kinds of Pit Games and both Indian and White Cornish fowls were seen. Many breeders of Cornish varieties do not like to have the term game attached to the breed, as it contains no more fighting blood that other more common breeds, and people are misled by the name. The four varieties named first belong to the exhibition class of games and have many admirers. They are taller and less compact in build than the sturdy, short-legged Pit Games.

The Cornish fowls are larger than the other kinds of games and may be kept for practical purposes, as they often lay remarkably well, are not heavy feeders and bear confinement well. They mature early and are not difficult to raise.

The Cornish fowls have another point to recommend them—they dress for the table to exceptional advantage, being very full in the breast and carrying a surprising amount of meat. Cornish fowls are sometimes used with success in making crosses and if they were better known and more widely-bred, they might well be transferred to the utility class.

Among the most unique fowls bred are the Japanese Silkies, the Frizzles and the Rumpless. It is only now and then that specimens of these breeds are seen, although some years ago the curious Rumpless fowl was not uncommon on farms in New York and Pennsylvania, being kept for business purposes and yielding a satisfactory number of eggs. The peculiarity of these birds lies in the fact they are tailless. The place where most fowls have a tail attached is entirely smooth, with the result, of course, that the bird has a very curious and unusual appearance.

The Silkies are very small, dainty and pretty. Their fluffy white feathers stand out from the body in all directions, so that the little birds look as though covered with down. Their combs and faces have a purplish tint, another point wherein they differ from most poultry.

More unique than the birds of either of these peculiar breeds are the Frizzles, which may well be described as freaks. Their feathers are what give them their odd appearance, for instead of lying close to the body like those of other chickens, they turn upwards and toward the head. The birds are found in different colors and it is needless to say always attract attention. They lay fairly well, but naturally are considered only as "fancy" fowls.

A few fanciers in this country are raising Japanese Phoenix fowls, very remarkable birds with tails sometimes five feet long. The Japs think so highly of this breed that a strain may be handed down from father to son for many generations. The Japanese are true fanciers, keeping some breeds purely for their ornamental qualities—and they are not so impatient for quick results as are the fanciers of this country.

HOUSE HEATING HINTS

By J. C. TAYLOR

FROM the pioneer practice of heating the country home with nothing but the open fireplace, which didn't heat the house as much as it furnished a cheerful place to warm by, there has been a strong tendency to the other extreme of dispensing entirely with the fireplace in the modern plans for heating. The idea is to make all the house so comfortable all the time that no special warming spot is necessary. This is good logic, but it is mighty poor sentiment, for the open fire is the most characteristic part of the real home, and to dispense with it is like throwing a lot of the finest family spirit out of the home.

The best plan all around is to retain a fair share of the open fires, and then add a modern hot air or hot water heating system. A good open fire going on cold evenings in the living-room, or some room where the family can gather around, is the greatest thing going to hold the family circle, and it would really be better for the home spirit itself to do without the modern heating appliances and keep the fireplace than to dispense entirely with it for the modern ideas. But one needn't do either. Have one or more fireplaces, and then add whatever heating system you prefer. With the fireplace you need not keep the whole house quite so warm as you would without it, so it will not add materially to the fuel account. Make it the regular old-time fireplace if you are burning wood; if coal is the fuel, have an open grate that is just as near to the old fireplace as you can get it.

Of the modern heating systems there is a choice between the hot air furnace, a hot water system and a combination of the two called the vapor system. As to which is best, one might stir up pro and con argument to last for a lifetime, and then it would remain largely a matter of peculiar local conditions or of personal preference.

All have been improved from time to time till one can get satisfaction out of a good system of either kind.

The main claims for the furnace are: The first cost is cheaper; it gives a good air circulation through the house, and thus aids ventilation; you can get the house heated up in the morning in less time, and it is simpler to handle. The claims for hot water are based largely on fuel economy, even temperature, and that it will hold its heat better through the night. The vapor system is the most expensive to install and claims many of the merits of both the other. It consists essentially of a hot water system all encased down in the cellar, with the heat from the radiators carried from there through the house by a piping system and registers similar to those used with the hot air furnace.

If fuel is expensive and a big item in the consideration, the hot water system will probably give the best satisfaction. But with this you should remember that the fuel estimates are based on a new, clean heater, and that to save fuel as you should, it is important to keep the flues and inner water-lined walls free from soot. This may not amount to so much if you are burning wood, but if it is coal that gives off considerable gas in burning the soot will form rapidly. This is because the water keeps the temperature down in the furnace so much lower than the natural temperature of the fire that the gases condense and form soot on the interior.

Whether you use a hot air or hot water furnace, there are certain points about the installation that apply just the same. One is to get your furnace near the center of the house, especially if you have a chimney near there, too. Get to a good central point for the sake of short and easy distribution of heat through the different rooms. The object in getting near the chimney is to make the smoke-pipe short. This pipe must be renewed practically every Fall, especially if it is left standing in place through the Summer, for the soot in it, moistened by the rains, eats out the metal. The shorter this pipe is, then, the less it will cost to renew it. Also the short pipe makes for a better draft, and less danger of fire through defects, or through it falling down.

The chimney should be preferably straight, with an inner flue not less than seven by eleven inches, with nothing else tapped into it but the furnace. A splendid idea is to build one big chimney, all enclosed inside the house, big enough to carry three flues; one for the furnace, one for the fireplace and one for the kitchen range. This makes a well-balanced chimney, and if the flues are lined with the regulation fireproof clay lining it will not fail to draw. The reason for putting it inside the house is to protect the chimney from the outside cold, which will make it draw better, and then the chimney itself will help heat the house and economize in fuel. The outside chimney is more picturesque, but it loses lots of heat through radiation and does not draw so well, so if that type of chimney is desired, make the walls extra thick.

In placing the registers or radiators you can better insure keeping the entire room warm by having them near the outer walls, but you can get more heat economy by having them near the inner walls. When the heat enters the room near an outer wall it loses some through wall radiation while it is warming the room, and if placed near the inner wall

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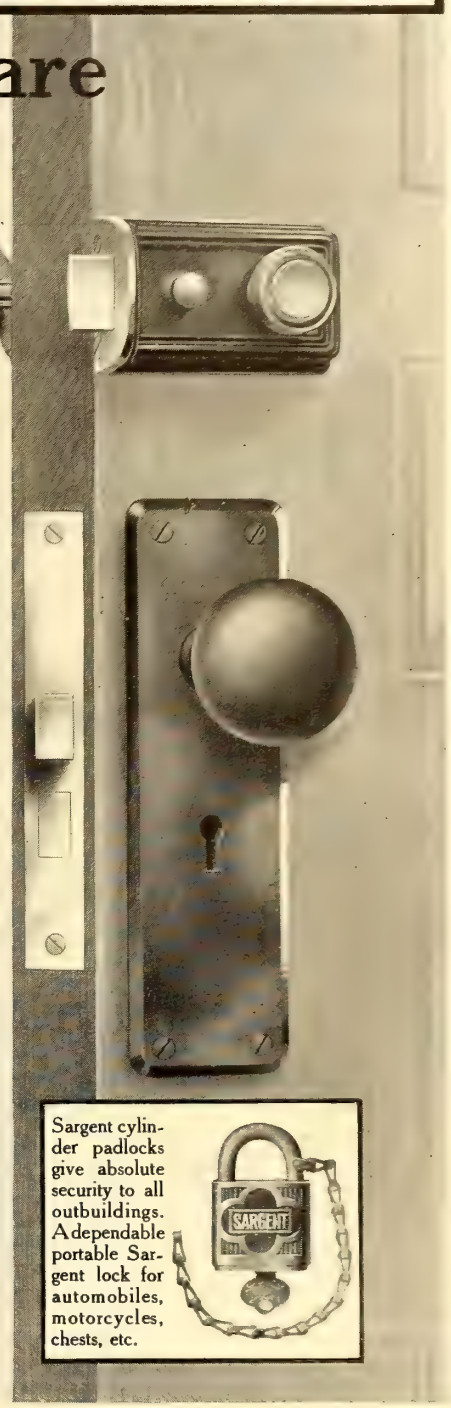

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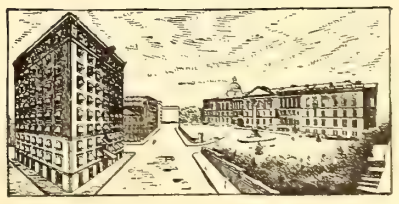

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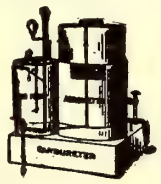

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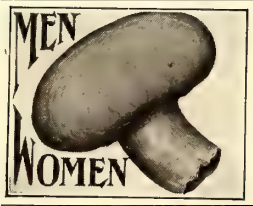

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it warms the room as it spreads to the outer wall, so there is some saving in heat. If you are using hot air you will find the floor registers, though they are a little more in the way than wall registers, will give better satisfaction. They start the heating right at the floor, and the heat naturally rises from there. The wall registers must generally be up from the floor a little, consequently they do not heat the floor well. And besides that, they blacken the wall in time.

The blackening effect of heat centers is one thing that you will find it hard to get entire freedom from, no matter what system you use. There may be less of it with hot water, but there is some of it with any heater. The furnace register is perhaps the worst of all, for occasionally a little smoke will find its way through them. Yet, it is not smoke so much as scorched dust particles that cause the trouble, and these will just naturally circulate around any heater, and upward from it. For this reason avoid placing registers or radiators by windows. It will soil draperies hung over them, and the window chills the hot rising air and reduces the heating efficience.

By observing these points, and following the spirit, if not the exact letter of them, you are likely to get the most out of whatever heating system you may select and be best satisfied with it.

THE GARDENS OF TRADITION

SUPPOSING that you have any affection for your household poets or any homely sentiment at all," says a writer in the *New York Evening Post,"* one or two lavendar plants will enable you to connect your little plot with the ancient tradition of big blooming gardens such as your grandmother used to be seen moving about in with her shears or coming out of with baskets of roses. As to the flowers for your nursery-made garden spot, you will choose certain varieties which promise to supply you with a rotation of blossoms—taking care to get plants which are timed to bloom that same year. The first flowers after those which spring up from bulbs are Pansies and little English Daisies. You may arrange, say, a bed of Pansies with a border of Daisies. One of the showiest and readiest blooming plants is Salvia, which, planted against the house or along the fence, will make a scarlet hedge all Summer and bloom until frost. May is a good time to put it out. Ten-week-stocks and Cockscomb are other tall and showy plants which lend themselves to the purpose of the commuter whose object is to get a real garden effect about his new place so that his first Summer will not be the contradiction of his dreams. These flowers, too, look well against fences, and may be planted early in May.

Then there is Golden-Glow, which is not only gay to look at, but comes up year after year, while Asters of all colors, also, though they are Fall flowers, can be got from the nursery by the last of April. The same is true of Cosmos and Chrysanthemums.

For all-Summer blooming there is nothing more satisfactory the Nasturtium. There are the dwarf varieties for beds and the wire fence background. The time for planting these also is around the first of May, and it does not take many plants to make a profusion of flowers. That is not forgetting, of course, the Geranium. Or, if again your ideal is grandmother's garden, there are Petunias, Verbenas, Sweet William, Hollyhocks, old-fashioned Pinks and

Phlox. Phlox and Sweet William, which are put out in May, bloom in June. The Pinks bloom in early Summer, the Petunias and Verbenas bloom all Summer long. These are merely everyday common flowers—familiar inhabitants of all unpretentious gardens.

QUITO'S WATER PORTERS

AROUND a fountain in one of the principal squares of Quito assemble every morning the city's aguadors. These water porters differ from the less energetic ones of some South American cities in carrying their jars upon their back instead of on the backs of mules. Their earthen jars are deep, have a wide mouth, and hold about forty liters. The porter carries it on his shoulder fastened with leather straps. He never detaches himself from his jar either to fill it or to transfer its contents to that of his customer. He turns his back to the fountain so that the jar comes under one of the jets of water, listens to the sound of the water in the jar, and his ear is so well trained that he always walks away at the exact moment when it is filled to the brim. Arriving at the house of a customer, he goes to the household jar, makes a deep bow, and disappears behind a torrent of water. Foreigners can never receive without laughing the visit of their aguador, the respectful little man who bows to one behind a cataract of water.

CHANCE IN INVENTION

THE making of khaki, the olive-colored canvas cloth so widely used for soldiers' uniforms the world over, came about in a curiously haphazard way.

For years there had been furnished to the British troops in India a greenish-brown cotton material, the chief defect of which was that it faded when washed with soap. A Manchester man, being told of this defect, set about to remedy it. For a long time he searched for an olive dye that would remain impervious to soap or soda. Months of experimentation were required to solve the problem. The cloth that finally resisted soap proved to have been dyed by a liquid that had rested in a metal dish of a certain kind. It was some quality of this metal that had contributed the very quality needed to insure permanence. The remainder of the problem was easy. The khaki that we know was the result, and a most profitable industry sprang up. Years ago a firm of printers in Paris executed an unusually large order for almanacs. Each sheet was punched with a small hole for eyeleting, and an immense number of tiny circles of colored paper accumulated in the workrooms. One day a workman grabbed a handful of these and, in a spirit of fun, threw the bits of paper over a girl worker who was passing. She retaliated; others followed the example of the two, and a miniature snowstorm was in progress when the head of the firm entered. Being a man of imagination, he saw "something in it." Confetti was the result. Instead of destroying the punched-out circles of paper, he ordered new and special forms of machinery for turning out the little papers that form so picturesque a rôle in many festivities throughout the world. It is said that this firm alone turns out more than sixty tons of confetti a week.

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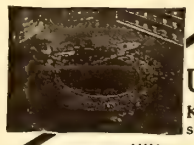

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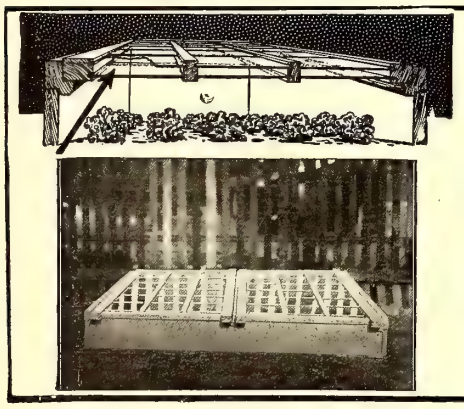

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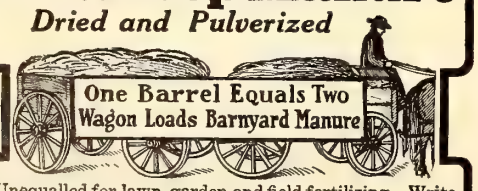

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THE following method of raising and marketing horseradish is given by the *American Agriculturist:* Although the horseradish is a perennial it will continue to grow indefinitely if some of the roots are left in the ground. It is usually treated as an annual when raised in commercial gardening. It is most profitable as a second crop, following beets, cauliflower or early cabbage. Only the main root is used for market, the small rootlets being broken off and preserved for planting.

The upper part of each set should be cut straight and the lower part slanting so that they may be planted right end up. Of course, they will grow anyhow, but they will make a more satisfactory crop if planted properly. The sets may be stored for the Winter in a cellar or in pits out of doors. It is a good thing to sprinkle sand between them to prevent heating. While the crowns of the plants may be reset and will grow, they do not produce a very satisfactory crop of roots for market and will not pay for replanting.

The sets are planted between rows of cabbage or cauliflower in holes eight or ten inches deep made with a light crowbar. They are covered two or three inches deep. If they are not set deeply they are likely to come up too soon and interfere with cultivating and harvesting the first crop.

QUEER MANX LAWS

THE Isle of Man, says *Harper's Weekly,* presents many curious features, none of which are more curious than its laws. For instance, the legislature is called the House of Keys and was in other times a judicial body charged with the duty of interpreting the laws. Any person so bold as to slander this House of Keys was liable not only to a fine in the amount of £10, but to the loss of both his ears. Two deemsters were once appointed to execute the laws which before the year 1417 were uncodified, and these were known as Breast laws, for the reason that they were imparted to the deemsters in secret, to be kept by them within the secrecy of their own breasts as long as they chose or during their whole service, though they were authorized to impart and explain to the populace as much of these special laws as should at any time seem wise and expedient. Certain of the Manx laws, as set down after the codification, are extremely quaint. Here are a couple of extracts from the Manx legal rulings: "If a man steal a horse or an ox it is no felony, for the offender cannot hide them; but if he steal a capon or a pig he shall be hanged." "In case of theft, if it amount to the value of six pence halfpenny, it shall be felony and death to the offender; and under that value to be whipped or set upon a wooden horse which shall be provided for such offenders." The arms of the Isle of Man, which, though it may sound like an Irish bull to say so, are legs—three legs bent at the knee and apparently kicking outward from a common center in the midst of a shield—have provoked a number of jocular descriptions, of which the best declares that one leg spurns Ireland, one kicks at Scotland, and the third kneels to England. On July 5th of every year the laws of the Isle of Man are still read aloud to the assembled people from the top of Tynwald Hill. This is said to be the most interesting and archaic legal ceremony observed to-day in Europe.

ANCIENT TIMEPIECES

IN 1288, says the London *Globe,* a clock-tower and clock were set up in Westminster at the expense of Chief Justice de Hengham, as a punishment for falsifying the record of a fine; and weight-clocks are known to have been used in European monastic houses as early as the Tenth Century. It is doubtful, however, if these clocks had a dial, face and hands. Probably they merely sounded a bell at stated intervals.

Sand-glasses boast an antiquity of more than two thousand years, and although now enjoying an honorable retirement or merely presiding in old-fashioned kitchens over the boiling of the breakfast egg, they formerly had a place in almost every parish church, where they served to keep the sermon within reasonable bounds. At one time the hour-glasses of superior quality contained not sand but egg-shells, which, when finely powdered and kiln-dried, were less likely to absorb moisture from the atmosphere.

Of even greater antiquity is the clepsydra, or water-clock, which was made in several forms. One of the simplest was the Hindu's copper basin, pierced with a small hole in the bottom, which, when placed in a vessel of water, filled and sank after a certain established interval. More elaborate forms were known in Europe and Egypt.

Although varying somewhat in construction, all used a "float." The float was placed either in a full cylinder from which the water gradually escaped by a hole in the bottom,—usually bored through a pearl on account of its resistance to erosion—or in an empty vessel to which water was admitted from above. In both varieties the float, falling or rising as the case might be, pointed to the scale of hours marked on the side of the vessel. The float sometimes took the form of a miniature boat, in which an outstretched oar was the pointer.

Clepsydræ such as these were used in the Athenian courts of law, and were put in charge of a special officer. One "water" apiece was allowed to plaintiff, defendant and judge. During the reading of any document that bore upon the case the flow of water was stopped. A clepsydra, which in its action and appearance foreshadowed the modern clock, carried upon its float an upright rod that acted on a toothed wheel, which in turn moved a hand upon a dial.

But the precursor both of the sand glass and the clepsydra was without doubt the gnomon of the sun-dial; a simple rod which, standing upright in a sunny place, measured the passage of time by the moving shadow that it cast upon the ground.

The earliest time-teller at all conveniently portable was the dial-ring. Within its broad-banded circle the hours were engraved; a ray of sunlight falling through a small hole in the upper side of the ring when held erect gave the time approximately.

ELEPHANTS AND RAILWAYS

MORE than one railway train in Siam has of late had encounters with elephants, says *Harper's Weekly.* In two cases the animals were killed, but in one the train was derailed and several cars were telescoped. Oriental cars have no "cowcatchers," for Old World engineers generally smile at cowcatchers as devices suitable only for what they deem to be American conditions of traffic. It is now observed, however, that the American device might be very serviceable in the case of stray elephants. Cowcatchers have already been introduced on the large locomotives of the line between Damascus and Mecca in anticipation of possible collisions with camels.

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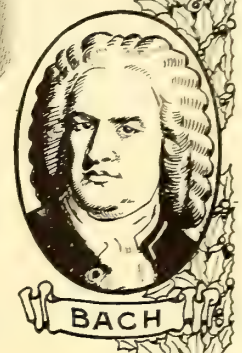

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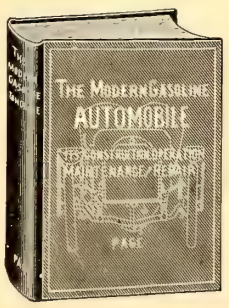

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Managing Editor, Gardner C. Teall, post-office address 361 Broadway, New York, N. Y.

Business Managers, Charles Allen Munn, post-office address, 361 Broadway, New York, N. Y., and Frederick C. Beach, post-office address 361 Broadway, New York, N. Y.

Publishers, Munn & Co., Inc., post-office address 361 Broadway, New York, N. Y.

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THE CHILD'S WORK

IF parents treated play as they often treat work," says the *Youth's-Companion*, "children would dislike the play quite as much as they seem to dislike the work. If at six o'clock in the morning a father ordered his ten-year old son 'to get up quickly and come down to his baseball in the same tone in which he sometimes calls him to work; if he sent him out after breakfast to play baseball till noon, and if he kept him batting 'flies' all the afternoon day after day, the boy would soon prefer to dig potatoes.

"Every child is happy at work. This does not mean, however, that he is happy at work planned for him by some one else, especially by an adult who has authority to compel him to do it, but it does mean that he will work to carry out his own plans quite as joyously as he plays.

"'Oh, yes!' you say. 'We admit that if you allow him to do what he likes to do, he will not get tired; but he wont stick to one kind of work.'

"Why should he stick to one kind of work when in this wonderful world there are so many interesting things to do? He is not learning persistence or developing will-power now, that child of yours. He is in a great, new, marvelous world, and he is learning every day new ways to transform it to suit his own plans. It is often better, therefore, that he should try ten different kinds of work in a day than only nine, because he would thus respond to ten vital interests and perform ten kinds of transforming, instead of only nine.

"A lady told of her discouragement: 'My girl is fourteen years old. Her interests change too often. She does not finish things. This Spring she told me that she intended to write a history of the United States during the Summer holidays. She asked me to keep her secret from her father, so that she might surprise him when her work was completed. She worked enthusiastically for six weeks, reading several histories that were in our town library, and others that she asked me to get in New York. She wrote a great deal, and then suddenly gave up the plan, and I cannot get her to take any further interest in it. What should I do?' 'Let the girl alone,' was the answer, 'and be profoundly thankful that her enthusiasm lasted six weeks. Do you think a girl of her age could write a history of any real value? When she is forty she may do so, and do so because of the interest developed by her concentration of six weeks.'

"It is not the achievement of the child that is of value; it is the developing of the child's achieving and transforming and productive tendency. The parent's duty is to provide for the child as many kinds of material adapted to his stage of development as possible."

THE CARE OF BOOKS

PERSONS about to install new libraries, or those who find their books in bad condition, will be glad of the advice offered on this subject by a writer in *Les Annales*. Glass cases should always be avoided, except for a few precious volumes which are specially looked after and frequently dusted, since the confined atmosphere and lack of air-circulation in such bookcases is favorable to the development of germs, insects and mold. Secondly, the simple precaution should be taken of placing on the shelves behind the books strips of cloth or flannel moistened with benzine, phenol, tobacco juice or turpentine. These strips give excellent results if renewed from time to time.

THE EDITOR'S NOTEBOOK

THE JANUARY NUMBER OF AMERICAN HOMES AND GARDENS

WITH the January, 1913, number, AMERICAN HOMES AND GARDENS will enter upon its tenth volume. The plans completed for the contents of the magazine throughout the coming year assure the maintenance of its enviable position as the magazine *par excellence* in the field of publications devoted to the interests of the American home-builder and home-maker. No other magazine of its sort surpasses it for excellence of text and beauty of illustration, and the widespread interest in it shown by readers throughout the country has been a source of gratification to the Editor and to the publisher alike.

THE Cost of Furnishing a Small House" will be the title of an article of great interest by a practical decorator and artist, Miss Ida J. Burgess. This article will take up the matter of itemized costs and will be adequately illustrated. "The Practical Treatment of an Abandoned Farmhouse" will be described by Miss Mary H. Northend, and the photographic reproductions accompanying it depict beautiful interiors. The plans for this house will be shown, as also will the plans for other house articles in this number, among which will be "Krisheim Cottage at St. Martin's," described by Harold Donaldson Eberlein, and "A Long Island Farmhouse," described by Robert H. Van Court. The subject of Floriculture will receive its share of attention in "The Begonia," an authoritative article on Begonia culture by F. F. Rockwell. The double-page illustration feature for January will present various types of balconies suited to different styles of architecture. An article on "The House Dog" by T. C. Turner will be one of the best dog articles of the year. This will be beautifully illustrated by photographic reproductions of the various breeds of dogs of the "house" sort. The various departments, "Within the House," "Around the Garden," and "Helps to the Housewife," will be continued throughout 1913. The covers of AMERICAN HOMES AND GARDENS have continued to attract much attention during the past year and the series selected for 1913 is equally beautiful.

THAT few gifts could be more appreciated by anyone interested in home-making—and what true American is not?—than AMERICAN HOMES AND GARDENS from month to month will suggest itself to many of the magazine's readers who are now planning their Christmas surprises, and to their lists they will probably add one or more annual subscriptions as being most appropriate gifts.

SCHOOLS AS EMPLOYMENT BUREAUS

THE schoolhouse as an employment office, says the U. S. *Consular and Trade Reports,* is the most recent proposal in the movement for the wider use of the school plant, according to information received at the United States Bureau of Education. Prof. John R. Commons, a member of the Wisconsin Industrial Commission, proposes using the schoolhouse as a labor exchange. He believes that the school, acting as a branch of the children's department of the employment office, should be made to help reduce the maladjustment of occupations that is now a crying evil. "Records of children's aptitudes should be kept in school. Teachers can best tell what the child is good for; and they should direct the children into the most promising occupations." It should be said that this principle is already partially recognized by public authorities. The vocation bureau of the city of Boston aids in directing the future occupation of children in the schools. In Ohio the truant officer is required by a recent statute to keep on file a list of the children between the ages of 14 and 16 who have received school certificates and desire employment; prospective employers are to have access to this list.

THE STREET IMPROVEMENT IDEA

THE Fifth Avenue Association, the largest civic organization in New York, represents a movement that should have every encouragement, a movement that should be taken up by civic improvement workers throughout the country. Every city and large town in America has a "Main" street, the principal business thoroughfare, whatever its name may be. In the whirl of competition, or in the lethargy of merely grinding out a living, our main streets the counting over have become, to a great extent, disfigured by ugly signs, projections, garish showcases, wooden Indians, barber poles and the like until this commercial hodgepodge has been permitted to make one forget that even the business section of a city should be and can be an orderly, attractive and livable quarter. In our hurry we have permitted our business thoroughfares to become perennial eye-sores, junk avenues of commercial, instead of commercial avenues of attractiveness. Fifth Avenue has been called "the finest business street in America," and a few years ago Mr. Robert Grier Cooke, of New York, called together a number of public spirit business men and proposed the formation of a civic betterment organization to be known as the Fifth Avenue Association, whose purpose it should be to maintain, through action awakened by arousing public interest, the beauty of the Avenue, which, at that time, was quickly becoming disfigured by the encroachment of gaudy signs, and all the accomplishment to the careless and thoughtless pushing of the commercial idea which was untempered with any consideration for public welfare. In the few years of its existence the New York public has been made aware of the invaluable service this movement has rendered the integrity of its civic appearance, and the Editor hopes that its example will inspire the formation in other cities and towns in America of like avenue and street associations. Not only our houses should be our homes, but our cities should be beautiful and homelike as well. Every American city's main street ought, in the measure of its opportunities, to be just as attractive to the citizen as the Rue de la Paix in Paris or Under den Linden and the Friederichstrasse in Berlin.

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By FRANK B. GILBRETH

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¶ The book is concisely written and should be studied by every manager and employer of labor who is interested in reducing labor cost.
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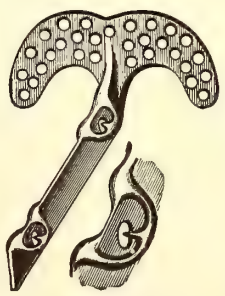
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THE SQUIRREL

THE squirrel is one of the most innocent and faithful of animals, and the husband of one wife even in Turkey, where he is found domesticated, as in China, Norway, Brazil, Siberia, on the banks of the Ganges, and in the Congo, according to a writer in *Harper's Weekly*. Nothing maternal can exceed the mother squirrel's tenderness for her young. They will dance with her in the woods, and assist in the search for nuts. Frolicking at their task, mother and father lay in the Winter stores. Their larder is full of seeds, grain and nuts, and is situated in the hollow of a tree or under the snow in a mossy hollow. As long as there is anything to be found in the woods the careful parents shun the larder, and owing to their prudence their provisions last until the woods again yield tribute. The squirrel is not satisfied with one hiding-place; he hides his provisions everywhere, and he is one of the best of foresters, for the nuts and seeds hidden by him and forgotten grow into trees. He is a skilful architect. The nest that he plaits with little twigs is well made. The entrance is perpendicular and narrow and sheltered from the storms by a leafy cone. It is so nearly the color of the tree trunk that it is almost imperceptible. In some countries the squirrel's nest is a burrow provided with five or six exits by which the tenant can escape from unwelcome visitors. The flying-squirrel is found chiefly in the forests of Norway and Lapland, but even there it is rare. It feeds on the buds of the pine and birch trees, and on wild seeds. Its "flying" members are two membranes which serve as a parachute at the moment of flying.

ELIMINATING DISTURBING NOISES FROM THE TELEPHONE

ACCORDING to the German periodical *Umschau,* a Swedish engineer named Saxenberg has invented an effective device for eliminating, or at any rate greatly diminishing, adventitious noises in telephone conversation. The device consists of a variable water-resistance. One such apparatus is provided near each of the transmitters, and the person speaking can, by adjusting the electrodes in the water resistance, regulate conditions to such effect that secondary noises are reduced to a minimum.

POISON IVY

THE Poison Ivy, *Rhus toxicodendron,* is the cause of much discomfort and suffering as everyone knows. *Forest and Stream* recommends the following treatment for its effects:

"Since the fact has been established that ivy-poisoning is mainly due to the oily substance carried by the pollen of poison-oak, ivy and sumac, men of science have found a remedy. This is the judicious use of soap, water and alcohol.

Dr. Thomas A. Berryhill, medical inspector of the United States Navy, is authority for this statement. When the infection first appears, he says, the parts should be washed vigorously with hot water and soap, then dried. Some time afterward, flushing with alcohol follows. That is the treatment, and he says it is very effective.

Many persons seem to be immune from ivy, oak and sumac poisoning, while others assert that they are often poisoned in passing close to leeward of one of these plants. This is not only possible, but probable during the warm season, when the pores of the skin are open. The infinitesimal globules of oil from the plant, carried by the pollen through the air, adhere to the exposed cuticle of human beings, and even to their clothing, in the latter case possibly to be absorbed on contact. If the oil of the ivy, which is soluble in alcohol, is once removed, and the affected parts soothed and coated slightly with alcohol residue, healing takes place rapidly.

Frequently persons are poisoned through putting on a sweater or a pair of gloves that have some time previously been brought into contact with vine or shrub. Dr. Berryhill gives such an instance which is interesting. A lieutenant applied to him for treatment for a rash that appeared on his hands while on board ship far out at sea. The physician diagnosed it as Rhus-poisoning, improbable though that appeared to be. Finally the lieutenant remembered that a few days before the rash appeared he had donned clothing which he had previously worn while ashore on a shooting excursion. The alcohol treatment removed the ailment, and so confirmed the doctor's diagnosis.

Among many persons the belief prevails that ivy-poisoning affects the blood, and that recurrences of the malady affect them annually. That is nonsense. The affection is nothing more than a rash, an irritation of the skin, but one which is extremely painful to those who are easily affected by it. Bathing the hands and face with alcohol is for these persons a possible relief from poisoning if they have exposed themselves to the influence of the plants.

COOK-BOOKS AND LITERATURE

THE woman who likes to read cook-books is held up to scorn in several recent novels as a prosaic person, who lacks taste, sentiment and ideas, and who is clearly unfitted for any high destiny," says a writer in the *Youth's Companion.* "But if a general census of feminine likings were taken, the chances are that nine out of every ten sensible women would be found to take pleasure in reading a well-arranged cook-book. What is more engaging than turning over the pages of yellowed old family recipes, rich in promise of delicious things, and written in the flowing yet delicately precise hand that was characteristic of the gentle mid-Victorian ladies? What really womanly heart does not thrill at the chance of looking through the "Widdowe's Treasure" and the "Accomplisht Cook," both published in the early Seventeenth Century, or does not long for the opportunity of testing the receipts of Archestratus of Gela, who lived and ate and celebrated his eating in the time of the younger Dionysius?"

Cook-books are not to be despised. Although they are not literature themselves, they are not widely separated from it. Balzac and Brillat-Savarin were enthusiastic readers of them; in Thackeray's "Irish Sketch-Book" you can find an excellent rule for "hot lobster," in other words, the American "lobster Newburg," and in one of the plays of the younger Dumas, a recipe for a delicious and elaborate salad. Not every man can bestow the order of the *cordon bleu,* as Louis XV did, but any average husband will appreciate his wife's culinary abilities and praise her becomingly. If "civilized man cannot live without cooks," the thing to do is to read and try, and read and try again. Ruskin says that "Cookery means the knowledge of Medea and of Circe and of Helen and of the Queen of Sheba."

AMERICAN HOMES AND GARDENS

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CHARLES ALLEN MUNN
President

MUNN & CO., Inc.
Publishers
361 Broadway, New York

FREDERICK CONVERSE BEACH
Secretary and Treasurer

Published Monthly. Subscription Rates: United States, $3.00 a year; Canada, $3.50 a year. Foreign Countries, $4.00 a year. Single Copies 25 cents. Combined Subscription Rate for "American Homes and Gardens" and the "Scientific American," $5.00 a year.

Copyright 1912 by Munn & Co., Inc. Registered in United States Patent Office. Entered as second-class matter June 15, 1905, at the Post Office at New York, N. Y., under the Act of Congress of March 3, 1879. The Editor will be pleased to consider all contributions, but "American Homes and Gardens" will not hold itself responsible for manuscripts and photographs submitted

Photograph by T. C. Turner

The sun dial on the garden lawn of "The Hedges" at Rosemont, one of the most picturesque country homes in Pennsylvania

AMERICAN HOMES AND GARDENS

Volume IX — December, 1912 — Number 12

Within "The Hedges" at Rosemont

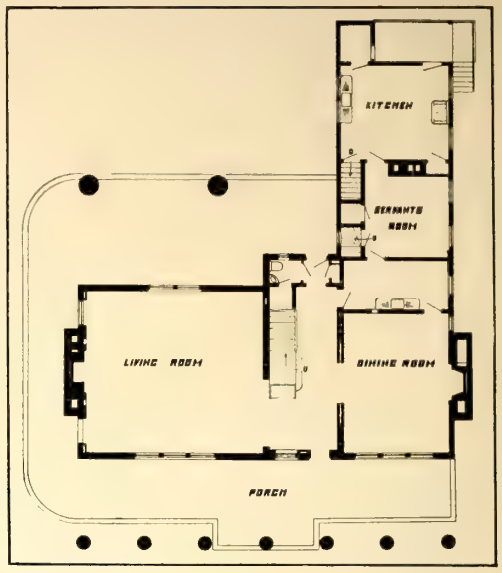
A House whose Prototype was an Old Pennsylvania Barn with a Heavy-Pillared Overshoot

By Harold Donaldson Eberlein
Photographs by T. C. Turner

SOMEBODY called it a combination of old barn and pergola, which may have been right enough as to its likeness to an old barn—its barn parentage is plainly traceable; the pergola idea is imagination pure and simple and without foundation. The subject of this description, a house at Rosemont, near Philadelphia, is a veritable cabinet of pleasant surprises from the millstone doorstep—rather let us be truthful and say from the first glimpse of its chimneys—to the unexpected, half-hidden vista between hedges into the lily garden at the rear, or what for convention's sake is called the rear, though why a house should have any particular front or back it is hard to see unless it be, as one architectural wag suggested, that it is well to have a front so that you may know just where it is and then you can escape from it more easily. It is

The ground on which "The Hedges" grew is a gentle declivity

Lawn front of "The Hedges"



Ground floor plan of "The Hedges"

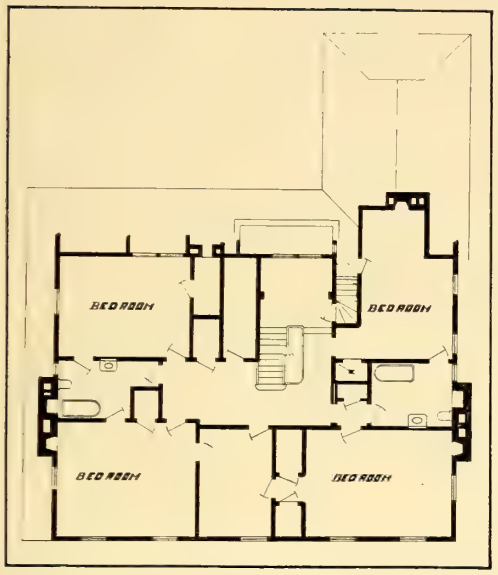
only fair to say, in this case, that even though "The Hedges" does labor under the disadvantage of having a front, it is a very delightful front and almost as attractive as the back.

One of the pleasantest features about it all is that the house and its surroundings are the outcome of intelligent and amicable co-operation, as such things should be, between architect and client. The architect, Charles Barton Keen, has felicitously incorporated the ideas and preferences of the owners from foundation stone to ridgepole and the ideas and preferences, let it be understood, were well worth while. Adjustment of little personal fancies in the fabric of a house is like the fitting of a coat to the comfort of the wearer; it may look as well without, but it will never be as satisfactory to the person that has to live in it. But it is time to drop generalities and get at once to the particulars of portrayal.

The ground on which "The Hedges" grew is a gentle declivity that, with acknowledgements to Caesar for the use of his phraseology, "slopes toward the north and west" so that the afternoon sun floods all the road front and one end with a deluge of light and makes the high, square-clipped privet hedges cast long shadows in the garden behind the house. A lusty hedge of privet shields the property from the road and gives all the privacy one wishes without obscuring the character of the structure from passers-by. Nestling in a setting of greenery, just enough is visible to whet the wayfarer's curiosity and make him wish to see more. Entering the gate, a long straight privet bordered lane stretches away past the side of the house to the stable and garage.

At the lower end of the place, where the land dips rapidly, a wild hedgerow forms the boundary. Eleven

The living-room, showing the great rug almost covering its floor



Second floor plan of "The Hedges"

years ago, when the house was built, a post and rail fence adorned the boundary line and, though bucolic enough in character, was not particularly pleasant to look upon. A perfectly trimmed and orderly hedge would have looked too prim and not at all as though it belonged in the fields, so the master and mistress of "The Hedges" hit upon the happy plan—worthy of emulation in like conditions—of setting out a wild hedgerow with everything in it from weeping willows to bramble bushes. Upwards of three hundred different kinds of things went into that hedgerow, all things that were collected near by, and grew like mad. The willows are now tall trees, lower in due gradation are dogwoods, sassafras and Judas trees, while beneath them is a tangled riot of blackberries, thorns, and a formidable array of wildlings too numerous to mention. The result has entirely justified the experiment. The hedgerow never needs any attention, it furnishes a succession of blooms and varied foliage throughout the year, it

The broad porch overlooking the gardens

doesn't suggest a Nuremburg toy-shop origin by its precise angularity and it does look as though it entirely belonged in the place it fills.

Outwardly, as already stated, the house suggests a barn, one of the roomy old Pennsylvania type with massive round white pillars supporting the overshoot. The rough-cast walls of glistering white throw the green of the hedges and all the planting into high relief while they themselves in turn are relieved and softened by the verdure. Along the road front the house shows a long unbroken pitch roof with ample eaves projecting over a range of broad windows on the second floor. The second floor in turn juts out beyond the first. The brick-paved porch, whose floor is on a level with the lawn, instead of having a solid roof, has staunch

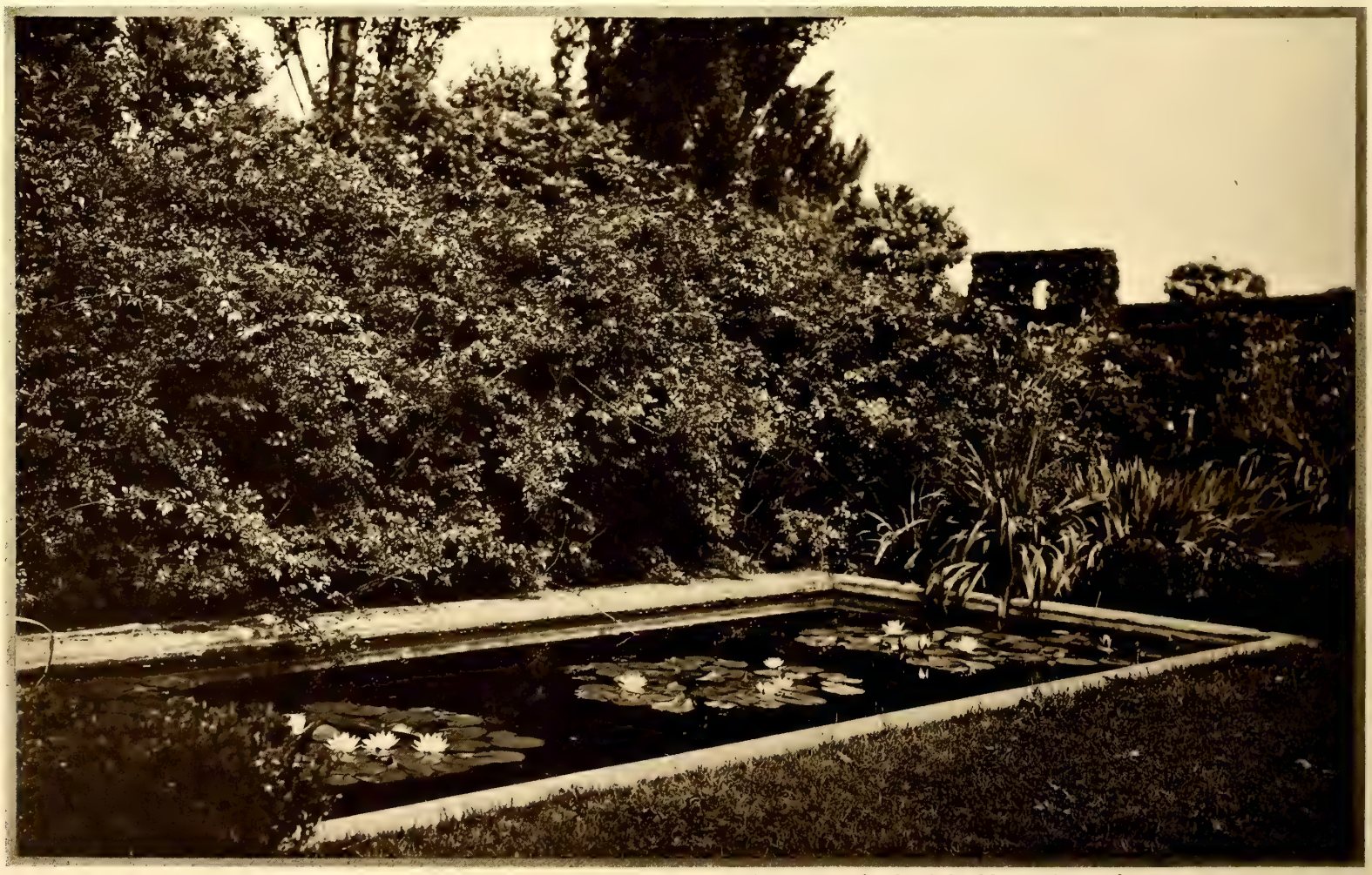
The dining-room is one of the most attractive rooms in the house

rafters spanning the space between the thick white pillars and the overhang, while upon them is built a trellis over which clamber Crimson Ramblers in riotous profusion, Honeysuckle and Virginia Creeper. In June when this living covering is ablaze with burning-hued bloom, outlined against the white background, the sight beggars words. The Rose vines and the Honeysuckle overhead, although the sunlight filters through in playful patches on the floor, give the porch plenty of shade without shutting off the air or darkening the lower rooms and altogether make a pleasant variant from a solid roof which is apt to be stuffy.

The brick-paved porch, whose floor is on a level with the lawn, instead of having a solid roof has staunch rafters spanning the space between the thick white pillars and the overhang

A doorway that it would take something more than "the full of a door of a man" to fill opens into a spacious hall that runs quite across the house to a door opposite, from which one steps out into the broad porch overlooking the gardens. At each end of the house great outstanding brick chimneys rise like twin sentinels and contribute an air of massive solidity to the whole structure. Half way between the ground and their tops, on their outer faces, appear the black iron S plates of tie-rods which, by their quaint piquancy, enhance the charm of the stack's proportions. Each chimney is surmounted by three or more red earthenware chimney pots shaped for all the world like bean-pots, so much so in fact that one irreverent but original member of the family would forswear its present name, "The Hedges," and call the place "The Bean-pots."

On the front away from the road—the back, if you insist on calling it so—the slope of the roof, descending all the way to the eaves above the first floor, is broken at several points by windows so set in that their tops project but little beyond the general surface and the outline is not disturbed by fussy, popping dormers. On this side the second floor projects beyond the first by the width of a whole room and is supported on more of the robust but tapering round barn piers that are so characteristic of the house. The space beneath this overshoot, this overhanging story, is paved with brick and makes a delightful outdoor living-room. From this point the view over the gardens, beyond the hedges, past the Lombardy poplars that rear their slender shafts behind a wall of privet and across a wide expanse of rolling, billowy countryside makes one feel that they really own the county. To cast eye and mind over these miles of the old Welsh Barony—all the land about was once a part of that famous tract—when Autumn's golden haze has wrapped the fields or when a gray November sky, whirling with scudding rack, sends down a freshening breeze that seems the breath of untamed Cambrian spirits of the upper air and calls up wild Gaelic memories of legendary things, brings a rare delight that words cannot utter. One cannot dwell too strongly on the value of such an outlook for, after all, the view we have from our windows is just as real an asset, albeit heaven has bestowed it upon us even without the asking, as the actual fabric of our dwellings for which we have usually spent much good coin of the realm.



At the end farthest from the house is a rectangular Lily pool, against a bank of shrubbery of great beauty

The shutters at "The Hedges" add a special charm of their own because of their refreshing simplicity. They are of the plainest batten type without the least suggestion of ornament, save the little heart shaped openings near the top, while the bolts and sockets are of heavy oak whose natural color stands out boldly against the white of the rest of the woodwork. With such shutters, of course, it is needless to say that the windows are *not* made of French plate glass, but of panes of proper size and in sufficient number to prove their English ancestry so that you feel you are really looking at a window and not merely at a glazed hole in the wall.

The shutters add a special charm of their own because of their refreshing simplicity

In the treatment of the hedges on the place a due balance has been kept between formality and informality. The hedgerow at the lower end of the grounds, as mentioned before, has been allowed to run wild and be a law unto itself; the hedges enclosing the gardens and near the house, where a note of formality is needed to bridge the gap between man's building and Dame Nature's handiwork, are square-cropped and trim.

Another refreshing bit of informality is to be found in the wild garden in an out of the way corner that it would have been foolish to mow and make into a lawn. Here Violets and Poppies, Asters and Tiger Lilies and all the host of wildings, of hue intense or tender, run rampant in their successive seasons and are a real delight to all that love a touch of coloring and form wantoning in native freedom. Passing from the wild garden, along a grass walk back of a tall hedge, we come between wide borders where Peonies and Rose bushes fill no little space while plants of humbler habit cluster round their feet. Back of the Roses and Peonies masses of Hollyhocks, Foxgloves and Larkspurs lift their scores of spear-like shafts of gorgeous color skyward.

At the upper end of this gaily bordered path an arched opening through the hedge admits to the enclosure at the foot of the terrace leading up to the pillared brick-paved porch under the overhang. At the end farthest from the house is a rectangular Lily-pool with a thick bank of Rose bushes back of it. Along the hedge on one side is a border full of hardy plants, among them two or three kinds of Meadow Rue brought in from the wild and tamed for its filmy grace. Gardening at "The Hedges" is thoroughly consistent with the spirit of the house. The house was patterned after an old Pennsylvania barn and its occupants therefore determined that it was fitting to have in the garden only such flowers as would grow without effort in the dooryard of an old Pennsylvania farmhouse and they have stuck to their resolution despite the manifold allurements of all manner of seductive exotics. How wise they have been a glance at the garden will prove.

In the middle of this privet *pleasaunce* is a sun dial set on a pedestal rising from the center of an old, worn mill-stone that came from Gulf Mills nearby and doubtless once helped to grind corn for Washington's army when it spent

(*Continued on page 444*)

In the treatment of the hedges on the place a due balance has been kept between formality and informality

Nestling in the heart of the Green Mountains of Vermont is "Muckross," one of its most interesting estates

Muckross

By Agnes Boss Thomas

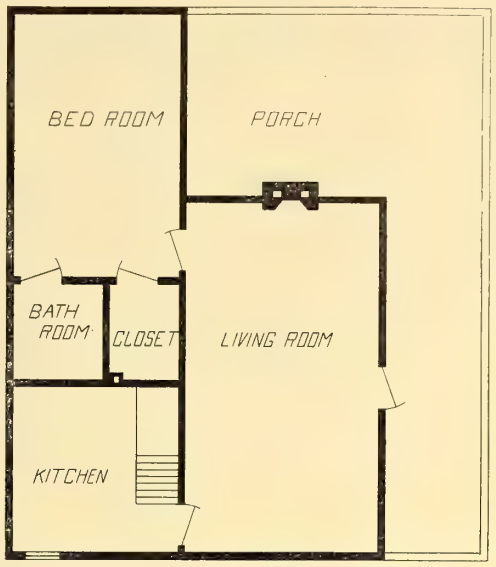
NESTLING in the heart of the Green Mountains of Vermont, and bordered by the mystic Black River on the North, is secreted one of the most unique, as well as the most retired estates of New England. For although "Muckross," as it is called by its owner, William D. Woolson, is accessible by a ten-minute ride either by trolley or motor car to the quaint village of Springfield, still it is entirely secluded by its two ridges and deep valley which its area of 600 acres affords.

This retirement is further enforced by its five entrances, two of which are known only to its owner and his superintendent. But the main gate, located across the Black River, is illustrative of the quiet life and even feudalistic impregnability of Muckross. The door of this gatehouse is guarded by an electric lock controlled from the distant bungalow. As a consequence, visitors seeking admittance must first announce their presence by the use of the telephone closet adjoining the door. Then if they are welcome, the door immediately swings open by the same subtle agency which winged the news of their arrival. But this is not all. For after passing through the rustic ante-room of the gatehouse, the visitor is confronted by a steel suspension footbridge, two hundred feet long, which sways thirty feet above the river, and entrance to which is instantly communicated to the waiting host by means of a convenient signal bell.

This air of mystery is again stimulated by the winding path which meets the bridge and leads to the bungalow in the glen, a distance of some two hundred feet: A walk rich in pulsing surprises and delight; for the visitor knows not whether the next turn of the path will swing across one of the rustic white birch bridges which span the gurgling brooks, or will unceremoniously plunge into a wooded thicket, or twine along high, cool ledges of shadowy rocks, with a constant chattering and final scurrying of the shy, curious creatures everywhere about.

The bungalow itself, although refreshingly modest and unpretentious, is strongly individual. For, as the happy, though single host explains, it is an expression of "just a lone man." Even the treatment of the roof—a low, four-gabled Japanesque structure—was built at the insistence of the owner, although, at the time, meeting with protest from the architect. But in a severe climate like Vermont, where the weather is below freezing outside and the house comfortably warm inside, the heat from the latter melts the snow on the roof over the house proper, which causes it to run down to the broad jet where there is no heat underneath. Here it freezes, building up a ridge of ice from two to six inches high, which sets the water back to an angle that puts it through the shingles and down the ceiling and

walls inside, a result that is absolutely unavoidable with a single roof. So the roof of the bungalow was first completely boarded, then cleated with strips running from ridge to jet. Then on this again was laid another roof, which was shingled. Thus the heat penetrating the lower roof passes off through the air space which causes a circulation over the entire roof. This keeps it from melting the snow on the roof proper or from freezing at the jet, with the exception of a thaw or a sudden change of temperature, in which case it will build up on the jet of the roof and simply run through on the lower roof and then out between the roofs, thus doing no damage. The spandrels formed by the roof are ornamented with the mounted heads of four fine specimens of reindeer; and above the two entrances are mounted horns of Texas steers. The doors, with trappings of hammered copper, have been left in their natural color to weather finish.



Floor plan of the bungalow at "Muckross"

A wide porch runs across the front of the bungalow, then leads into a large open-air lounging-room, windowed and screened, and this can be entirely enclosed when desired. This room, which borders the side of the dwelling, measures thirteen feet by twenty-two feet. Here interesting furnishings are introduced. The low, deep easy chairs of a dull-green tone are brightened with red silk cushions. In the several novel receptacles of the table which stands to the side center is an interesting "bachelor" collection of pipes of all descriptions. At either end of the room are large red-cushioned porch-swings which can also be used as beds. Then, jutting from the center of the thatched house-wall, is an exceptionally well designed fireplace built of native stone, laid dry and bearing as a decoration aloft a reindeer head trophy. And smuggled here and there in the crevices of the stones peep several interesting and rather unusual specimens of the little creatures of the woods; a quaint method of naturalizing an interior.

The entire front of the floor space of the bungalow of "Muckross" is absorbed in a spacious apartment which measures fifteen feet by twenty-six feet; one half of this space being a living-room, the other half the dining-room, but so constructed that it can be divided when necessary by attachable screens. The woodwork is a soft, dark brown North Carolina pine, the walls having a seven-foot paneling

The dining-room end of the bungalow at "Muckross"

Living-room end of the bungalow at "Muckross"

finished with a foot-and-a-half wide picture railing. Above this is a rough plaster frieze tinted in café-au-lait, which color is also used in the beamed ceiling. The floor is covered with two nine-by-twelve Indian druggets in soft ivory grounds with figures in blue and brown. The furniture is of oak, stained a soft brown with ammonia. On the large divan, as well as the several rockers of the living-room, are brown leather pillows which match the upholstering of the divan. The flat-top desk table in the center of the room is covered in the same brown leather, fastened with copper nails which match the hand-wrought copper handles, desk-set and copper lamp. The fixtures for this room and the bed-chamber, as well, are of original design—hand-wrought copper with glass shades in brown and amber. Linen-colored shades screen the windows, over which fall écru fillet net curtains with hand-embroidered borders in a darker brown floss, while the heavy draperies at either side are of a soft old blue Scotch arras cloth, with flat, simple valances, embroidered and appliqued in colors to bring the tones embodied in the room and rugs together. Then, in the center of the wall space opposite the main entrance, hang portières and valance which harmonize with the window draperies. These portières hide from view a bunk in which is a spring attached to elevating cords, and on the bottom, above several drawers, is a cushion in brown Arras cloth. Thus is made a cushion effect in the daytime and a bed at night, with accommodations for another in the upper berth on the elevating or depressing spring.

The dining-room half of this room is in harmony with the other half, since it carries out the same general tone in the furnishings. From the center of the beamed ceiling hangs a beautiful hand-wrought copper dome light, under which is a copy of an old, round Dutch table. Around the room are oak side chairs with seats upholstered in the same brown leather. A plain, simple sideboard ornaments one side of the room, while at the end are two china cabinets which match the rest of the furniture. But distinguishing the entire room are its many fine specimens of the birds and wild creatures which were captured by the owner. Among these are mounted trophies of bears, foxes, deer, weasels, squirrels, partridges, and an unusually good specimen of a wildcat.

Opening from the living-room is the owner's bed-chamber. Here the color effect is in soft gray browns, the walls being hung with coarse bagging. The woodwork is the same as in the outer apartment. The floor is covered with a hand-made wool rug in an original design in browns. The furniture consists of a brown-toned oak bed. On this is used a hand-embroidered linen bedspread of original design. Then a chiffonier of oak, trimmed with copper, over which is suspended from copper chains from the cornice a large oak mirror. Several side chairs, rockers, and a bed table complete the set. The draperies are linen-colored shades, gauzed with écru fillet net, hand-embroidered in a dark brown floss.

But this chamber, like the outer apartment, has a distinguishing "feature." For it is here that the switchboard, in the form of a cabinet, is located. This, together with the "Falls," which will be explained later, are the pets and pride of the owner, as, indeed, the real features of Muckross.

This switchboard has ammeters of the Weston type, both for reading the current of battery on charge and discharge and also a generator output. Also, a voltmeter with switches to enable the potential of either the generator or battery as a whole to be ascertained. The telephone and signaling circuits are carried in an underground, lead-covered cable, having fourteen wires. These include the local telephone and door-lock circuits, public telephone, and two buzzer circuits, one to give notice when the ante-room door at the bridge opens and one giving notice of the approach of an electric car when the latter is still a mile distant, and two circuits in reserve for emergency use.

Underlying the bungalow is a snug and perfectly appointed stone basement with its various rooms. Muckross also includes a twenty-acre farm on which live the servants. Here cows, horses, pigs and chickens are raised side by side with their untamed brethren. Thus the estate is self-producing, since it yields milk, butter, eggs, poultry and garden truck, to say nothing of its fishing and wild game. But as an incentive, all proceeds of the farm above, the current expenses of the estate, are shared by the servants. Perhaps it is unnecessary to mention that the yield therefrom is truly surprising.

About a third of the acreage of Muckross is timber land, 80,000 White Pines having been set out within the first two years of its existence, and it is anticipated that in thirty years the timber will pay for the investment. The estate is well stocked with game, having perhaps as its choicest asset a hundred head of deer, which were purchased as other cattle. Also three and a half miles of natural trout brook with three artificial ponds stocked with native and rainbow trout. The largest of these ponds—each of which is equipped with canoes and rowboats—covers sixteen acres. While the "Falls," just below, which is five hundred feet from its entrance into the Black River, plunges over a nearly vertical ledge—a distance of 114 feet. Thus, by means of a reinforced concrete dam and a small hydro-electric plant located nearby, the Falls furnishes sufficient power to generate electricity for lighting the bungalow, the garage across the bridge, and out-buildings; brilliantly illumines the bridge and paths twining about the grounds with incandescent electric lamps mounted in special weatherproof fixtures designed especially for the purpose; operates the electric range in the kitchen, heaters for rooms and all service water.

In asking Mr. Woolson how he happened to establish such an unusual habitat for "just a lone man," he replied: "Through my love for hunting and fishing, and its consequent camp life. But," he added, "since living here I've so learned to love the wild creatures of the woods that I can't kill them as I used to. Perhaps this is due to an experience I had after my first purchase of deer. For I was just returning from a day's hunting when a young doe, appearing in the flat beyond, was such a pretty shot that I up and fired. She fell. But when I reached her she raised her head and looked at me with such a piteous pleading in her soft eyes that it sickened me, and particularly as I further witnessed the heart-gripping grief of her mate. And I resolved then and there never again to kill merely for the 'sport.' And for months after I wouldn't look at a gun. Until now," and Mr. Woolson smiled benignly, "it has become nothing less than an ambition to so woo these shy creatures that eventually they will not flee at my coming, but will recognize me as their friend and protector." This growth of tenderness for animals is not exactly the record borne by St. Francis d'Assisi or Henry Thoreau, as they always had the faculty of charming the wild denizens of wood, air and water, so that they came to their hands; a power which may yet fall to the master of Muckross in his weaponless sylvan tramps.

A wide-covered porch runs across the bungalow at "Muckross"

Model of an antique ship, worked out to reduced scale in all details

Antique Ship Models

By Robert H. Van Court
Photographs by T. C. Turner and Others

THERE is no chapter of history more fascinating than that in which are written the achievements of the men who go down to sea in ships. The story begins with the days when Egypt, Greece or Phœnecia ruled the sea, or as much of the ocean as was then known. Then the proud galleys of imperial Rome had their long day, and the time most brilliant of all was during the later centuries, when Venice ruled the Mediterranean and when the navies of France, Spain, England and Holland contended for supremacy upon the high seas, when the pride of Spain went down before the power of England in the sixteenth century or when, in the seventeenth century, the Dutch Admiral Van Tromp swept insolently up and down the English Channel. Those were the days when the achievements and victories of armies upon the land appeared extremely trivial compared with the attainments of navies upon the water.

Much of the romance of these and other picturesque days is expressed by the models of vessels of different periods of history which grateful seamen have offered at shrines and altars after rescue from the perils of the deep. In cathedrals, churches and chapels in Norway, Sweden and other countries upon the Baltic the model vessels hang suspended from the ceiling, placed there by fishermen and mariners as tokens of thanksgiving for escape from shipwreck, and the church upon the little island of Heligoland in the North Sea is filled with them. This is but one form of expression of the same spirit which existed in earlier centuries, for the temple of Neptune in Rome was hung with the sea-stained garments of mariners escaped from drowning, garments offered as votive gifts to the god of the sea.

The effect of miniature vessels hung amid the arches of churches and chapels no doubt suggested this form of decoration in places where there would be sufficient height for the proper placing of such ships-in-little. In the library of a New York business man is placed what he calls his "navy." Here are hung miniature models of the vessels of many nations and countries. A quaint fleet which extends in endless procession about a large room give more than a hint of the history of navigation, together with a suggestion of its mystery and romance. Here are represented the galleons in which the buccaneers of old plundered cities and towns

upon land, as well as vessels afloat, and the "navy" is made representative by including models of much later vessels, such as the "Constitution," which have had more direct relationship with the history of our own times.

Many very successful models of ancient ships, some of which are here illustrated, have been built by Mr. Henry B. Culver, of New York, in his hours of recreation. For years Mr. Culver has devoted many of his leisure hours to the study of the vessels of different kinds which have played so important a part in the history of sea-faring nations. Besides being of great interest as studies in the development of shipbuilding, the models themselves are exceedingly picturesque and possess a high decorative value. It is extremely interesting to watch the building of one of these little models, for which ingenuity of the highest order is required. The designs of the oldest vessels must be studied from old coins and manuscripts and even illuminations have a certain value. When one comes to a later period of history, where the vague help of coins and drawings upon vellum may be exchanged for the more tangible aid of printed books of any kind, the task becomes somewhat less difficult, but even there a vast amount of work is required if the model is to be built to scale. The tiniest detail must be laboriously carved of wood and fitted into place, and the intricacies of rigging or deck arrangement be puzzled out.

Let us follow the building of a British war vessel of the kind which was constructed during the reign of Queen Elizabeth, say about the year 1550. A long study of the subject has brought Mr. Culver to decide upon the merits of a ship of this date as most effective as a medium of decoration. The hull of the ship is first built up by constructing a frame or skeleton of small fragments of wood designs, of each of which must first be drawn and then the wood cut into the precise shape and size required. The framework being joined, it must be covered with tiny timbers to represent the stout planks of the sturdy oak which covered the sides. These boards must be of many different shapes, with the most minute variations of thickness to enable them to conform to the shape of the skeleton or frame which they are to cover. All this is merely the beginning of the task, for now the decks must be placed at their various levels inside of the hull, and the tiny hatchways covered with gratings made of the smallest possible fragments of wood. Then comes the coloring and decoration of the hull for a British man-of-war sailing under the ensign of Elizabeth for ships of this period, like the "Royal Harry" and "Henri Grace à Dieu," built in the former reign and inherited by Elizabeth; or the famous "Revenge," which alone and unaided fought fifty-three ships of the "Spanish Armada," sinking gloriously with all on board. These were no simple work, but tasks which demanded and secured the most earnest efforts of the most skillful of ship architects and decorators of the day. The bows of these vessels were a mass of very rich and decorative carvings elaborately colored and gilded, where amid festoons and wreaths the British lion carried the shield with the cross of the empire in his forepaws and on his head was set the regal crown. Let us suppose that the ship under construction carries sixty guns, fitted behind portholes in tiers in the hull or upon deck. Each of these tiny portholes must be embellished with a wreath, also carved and gilded, and these wreaths must be connected with festoons carried along both sides of the vessel. The richest decoration of all, however, must be about the stern or poop, built up upon many levels and covered with the most intricate

Model in miniature of a Viking ship of the tenth century

Model ship before rigging

carving, among which are placed the tiny cabin windows with their casement frames set with square or diamond-shaped panes. High above all are set the small gilded lanterns, one, two or three, according to the dignity of the vessel.

Next comes the fitting of the intricate rigging, the cutting of numerous tiny pulleys and the designing in the making of sails, wired to cause them to present the majestic appearance of the "Henri" when under full sail. Finally the correct form of naval flag must be followed, for if the officer in command were an admiral the flag would be quite different from that borne if an officer of lower rank were in charge. When this has all been accomplished, the entire work must be toned down or somewhat aged to produce just the appearance of the vessel at the height of its career.

This fascinating combination of study with building and decoration would be of particular interest in connection with the vessels which have played a part in the history of our own country, and their models would be particularly appropriate as decorations in American homes. Theirs would be a value historical, as well as picturesque, for the primitive vessels of the early Norse navigators were followed a few centuries later by the three quaint caravels, the "Nina," the "Pinta" and the "Santa Maria," in which Columbus sailed from Spain to brave the unknown leagues of the broad Atlantic. Then came the "Mayflower" and the later vessels, American and foreign, merchantmen or war vessels, which have taken part in the building up of our own country.

Model ship after rigging

The study of the subject, the preparing of the plans and the actual building and decorating of these little ships mean a search into a vague chapter of history and are a fascinating and little known department of craftsmanship.

The pictures show a number of models of antique vessels of various countries and many different ages. The simplest,

(*Continued on page 441*)

A miniature ship such as this one forms an interesting decoration

The wash-house was transformed into an attractive studio interior

A Wash-House Studio

By Katharine Lord
Photographs by T. C. Turner

"WHY, that?" said the old man. "That's only the wash-house. It's no good now except as a storeroom. Even the water's been taken out, but the connection's still under the floor. Rent it to you? Pshaw! What would you do with it? You would surely regret it."

The artist, looking over her neighbor's fence from the newly opened social settlement, had seen the little brick building that just exactly filled the end of the back yard.

It was entirely covered with Japanese ivy, had a delightful old door, two windows below of quite different sizes and apparently unrelated to any general plan, while above was a row of four of the primmest little square windows that ever looked out discreetly from under an overhanging roof. From the chimney at one end were flung out long twigs of the ivy which beckoned invitingly and seemed to point inside, as if they would tell of a fireplace and possible good cheer within.

The fireplace end of the wash-house before its transformation

To the delightful old gentleman who had lived in this neighborhood all his life, and remembered corn fields in what was now a city slum, the idea of a studio in his wash-house was startling to say the least. It was only one more step, however, in the general lawlessness and lack of due respect for custom, so characteristic of the present time, represented in its worst form by the street gang of boys who battered at his front door and threw mud at his area windows. The settlement did not seem to him to have a proper horror of the Italians who were slowly but surely replacing the Americans who still clung to the quarter, and to have a nest of bohemians in his back yard—well, very evidently the idea did not appeal to him at once.

But the little artist was very beguiling and out of her

real human sympathy grew an irresistible power of persuasion, and before long the old gentleman was not only willing but interested. The rent was fixed—at an absurdly low figure too—and they at once set about getting a carpenter to cut a gate in the high board fence.

In the old days, fifty years ago or more, when this had been a quiet street of solid, well-to-do house-owners, the little brick buildings in the yard had served as laundry and general service-room below, while above were probably some servants' quarters. It was indeed a change for the little house, long practically disused, to become a craftworker's shop and a gathering place for a group of men and women very much alive to all the progress of the day.

The wash-house before transformation

When the little artist first stepped inside the tiny house she could not believe her good fortune. There was the wide and deep brick fireplace of her dreams, occupying most of one end. A staircase, enclosed with matched boards, ascended to the upper floor. The beams supporting this floor were heavy and rough, and had once been boarded over, but a part of this boarding had fallen down. The second floor was divided into two rooms, or perhaps more exactly a room and an ante-room, where the stairs entered, for in this small room there was no ceiling, and the brick walls were bare, while the other was ceiled and plastered. The four small windows on one side lighted the upper floor well. The windows, thick with dust and cobwebs, admitted little light. The place was piled high with odds and ends of furniture, empty boxes and other rubbish.

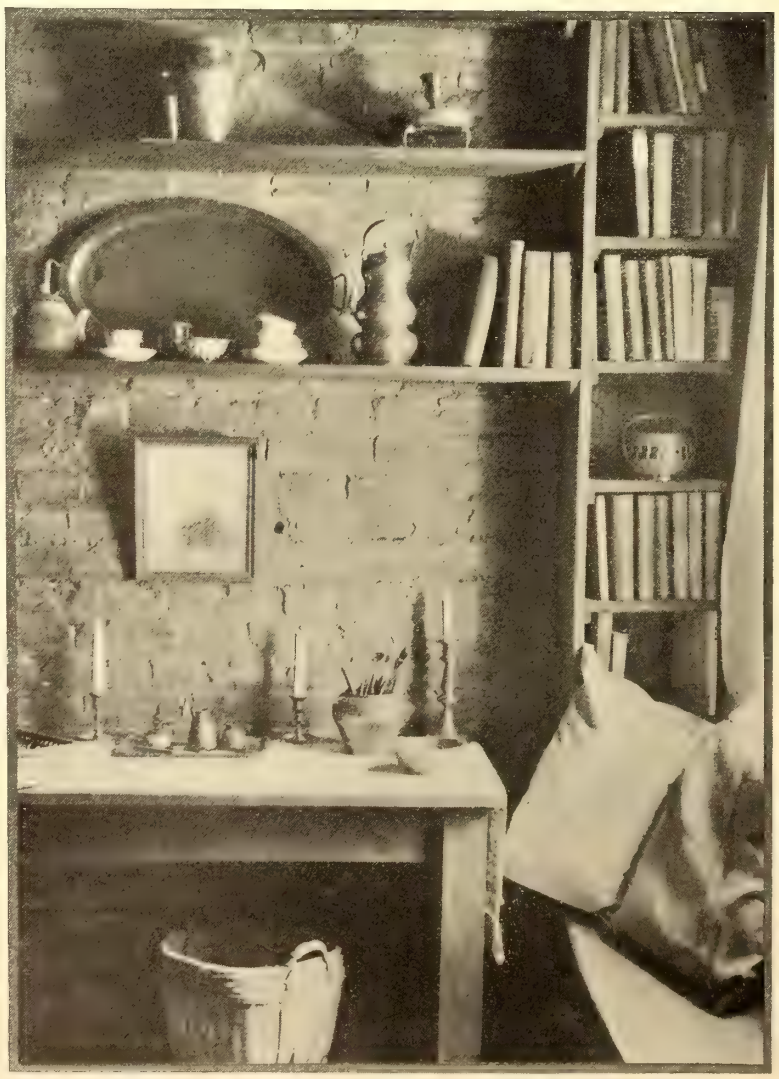
But the little artist saw through the dust and dirt its future. Her imagination pictured the wood fire's glow on the disclosed beams, and the delightful way the shadows would play about the deep recess beside the chimney. A high cupboard of one deep shelf, once enclosed but now guiltless of a door, occupied this recess, and beneath it stood a long, much-battered chest—just the thing for a wood-box. The walls of this lower room presented considerable variety, two of them being only of the brick, a third plastered and the fourth roughly cased in wood, the reason obvious, for one place that had not been quite covered showed cracks letting in the outside light.

With *carte blanche* to do what they liked, so long as they didn't tear the house down, the artist and her friends began the work of rehabilitating the long-disused wash-house.

The first thing to be done was some tearing out. The overhead beams proved to be solid and whole, and the now insecure boarding was pulled down, leaving them exposed. The ceiled-up side of the room had to be renovated, and then came the question of shelving.

Rather high over the chimney was placed a wide mantel, with long wooden supports reaching down on either side. Along the side that enclosed the staircase a narrower shelf was built high, about 18 inches from the ceiling, and at the end of the room opposite the fireplace was placed a double shelf across the entire space, and underneath it was placed a comfortable couch. The shelves above filled with books and the fire lighted, who can imagine a more delightful spot for reading? At one end of the couch stood a small table with a brass samovar and tea tray, while across the room, in the old cupboard, hung the cups, and on its shelf were sundry casseroles and other things that foretold the possible preparation of gay little suppers as well as afternoon teas.

Upstairs there were more shelves. The window in the ante-room had its built-in seat with locker beneath and flanked by book shelves at either end, just the width of the seat. A set of three shelves, the lowest some four or five feet from the ground, filled the end of the room, and underneath was placed a narrow writing table. These again were filled with books, except an occasional space for a bowl of gleaming brass or copper.



Shelves were arranged to hold books and old pewter

You will see that the purpose of all this high shelving was to save space, the little rooms being none too large for the necessary furniture.

The shelves were just of smooth pine boards, and all the supports were of the visible type, made of scantling. All the shelving and such portions of the old woodwork as required replacing were stained brown, while the door, window frames and walls, having been painted once, were again painted a cool moss-green. The floors were done with green—the paint being mixed with kerosene, which makes an admirable floor stain.

The effect was indescribably beautiful with the browns and greens lighted

up with the warm glint of the copper and brass jars and bowls, which were everywhere, many of them filled with flowers or bright leaves in their season; and the candlesticks, some standing on available shelves and tables and some, Russian sconces, fixed to the walls. And at night, when the red firelight vied with paler candle frames, the dark corners held their warm shadows stoutly and gave back dark spots for bright, in a warm, ever-changing play of light and shade.

The larger room upstairs was the studio or workroom proper, since it was the best lighted, and the artist practiced her craft at the long table which stretched in front of the three windows. Here the spaces beside the narrowed chimney were filled on the one side with shelves and on the other with a cupboard, so that there was ample space for tools and materials and safe housing for finished work.

All the woodwork and repairing was done in three days by a carpenter, and with a woman to give the place a thorough cleaning, paints, oils and stains, the total expense of putting the house in condition was about sixteen dollars.

The water connection was not taken up. Had it been, this would have materially increased the cost. Of course, the artist personally oversaw the work, saving the carpenter much time by determining heights of shelves and other measurements, and designing herself the shape of supports and the curved edged cover of the window seat.

The place did not need much furniture. There was the couch and a few chairs and a small table below, with an old mahogany "secretary," which seemed just to fit the place. And upstairs, the large work table, some chairs and the little desk. All were quaint old pieces picked up in the course of rambles in the forgotten corners of the town. The little artist had long been hiding them in friendly store-rooms and cellars, for none of them suited her dainty living apartment.

But she had known this place existed somewhere, just the place to dream beautiful dreams and work them into beautiful things for daily use, and then dream beautiful dreams again.

Almost anyone may have a "house of dreams" like this, for in the older parts of any city many such places lie all unsuspected, waiting only the seeing eye, and the magic touch that will redeem them from their grime, and show them forth, the places of charm and individuality that they are. And what places they are for work, these queer nooks and corners. The creative artist is always peculiarly affected by his surroundings, and to the worker who must live at least part of the year in the city, the finding of congenial quarters is not an easy task. In some parts of New York the sculptors have seized upon the old private stables, now largely superseded by the public garage, and utilized their high spaciousness.

Let the craftsmen and workers with pen or brush investigate the backyards and inner courts and many a charming little old world building they will find, sometimes in use, more often not, because as a rule, they are not fitted for use as dwellings even under the easy standards of the slum.

Quite the best part of this little house was the garden, as an Irishman might say: "Was the garden there, perhaps you ask? No, again the artist's seeing eye pre-visaged the whole

(*Continued on page 439*)

The furnishings that transformed the old wash-house were simple but well chosen

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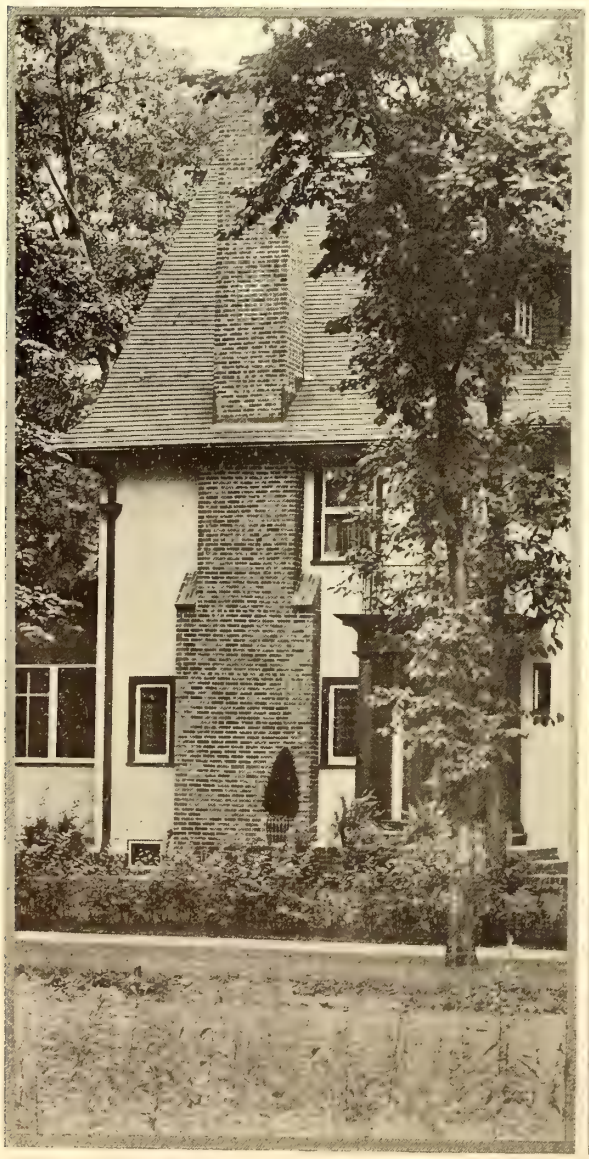

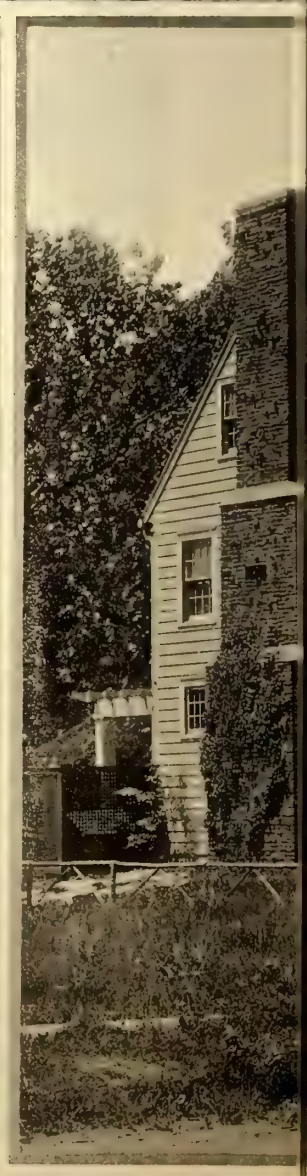

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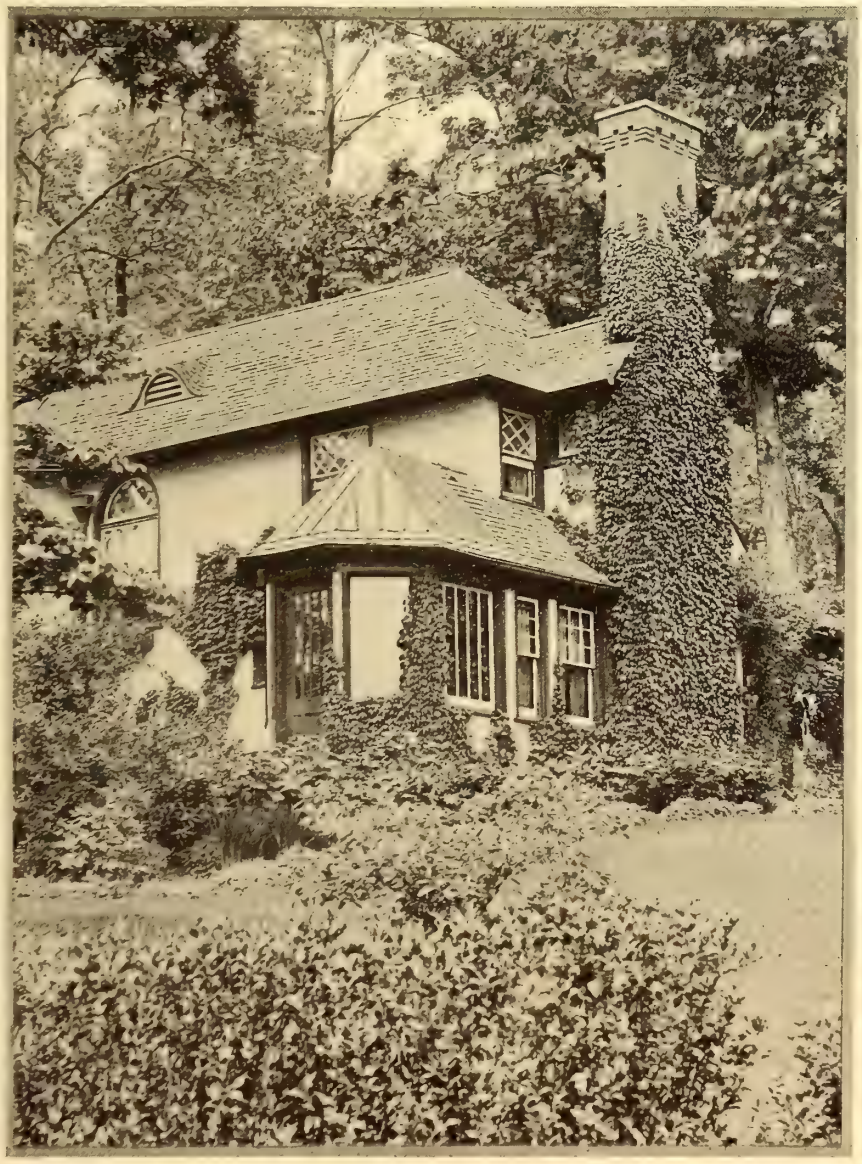


CHIMNEYS OF DIFFERENT TYPES

The cement house here illustrated is the home of Mr. Everett E. Kent at Newton, Massachusetts

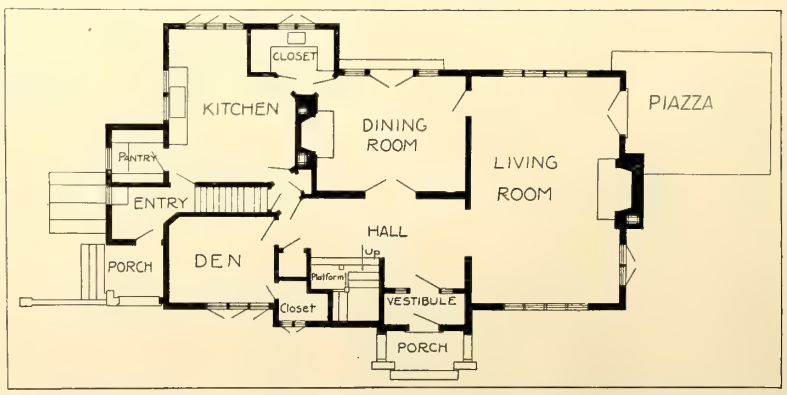
A House at Newton, Massachusetts

By Mary H. Northend
Photographs by the Author

THE adaptability of cement to modern house construction has come into recognition everywhere, and its use has been productive of many interesting results. Employed alone, or in conjunction with other materials, it is equally attractive, and the soft tone of its finish serves to bring into prominence the contrasting tints of trim and blinds. Time was, in America, and not so very long ago, when cement was considered wholly unsuited to decorate effects, and houses constructed of it were simple ugly squares of rectangles, with broad, unadorned spaces that palled upon one's sense of fitness. Study eliminated these glaring defects of first attempts, and little by little the objectionable features were removed until to-day cement takes its place in building construction along with bricks, clapboards, and shingles.

Just how great the progress of its development has been is well shown in the house here described, the home of Mr. Everett E. Kent, at Newton, Massachusetts, designed by Messrs. Chapman & Frazer, Architects, Boston, which illustrates in a convincing manner its attractiveness and adaptability. Here an old-time model has been combined with newer features, and the cement finish serves to emphasize the quaintness of the whole. The second story shows an overhang in imitation of seventeenth century homes, and the deep pitched roof also suggests Colonial influence. Dormers break the severity of the roof sweep at front and rear, and a great outside chimney is a feature at one side. Porches at left and right of the body of the house afford a sense of balance, and, in addition serve special purposes. The one on the right is used in the Summer season as an outdoor living-room, while the one on the left, partly screened by a high cement fence, affords access to the service department.

Perhaps no feature of the house is more interesting than the window arrangement. No studied plan of insertion has been followed, though due regard has been paid to preservation of harmony, and the result is a series of grouped and single windows that are most attractive. The majority are of the casement type,—the front of the dwelling showing only this kind—and each is placed with a view to securing to the room within plenty of



Plan of the ground floor of a house at Newton, Massachusetts

light and ventilation.

In point of location the dwelling is especially fortunate. It occupies the center of a slightly elevated plot of land, affording surroundings of grassland, interspersed with trees, and at the front it commands a view of the highway. The soft gray of the cement and dark brown of the trim afford a combination of coloring that contrasts charmingly with the deep green of the grassland flankings, and shrubbery and vines, planted about the house base, and as yet undeveloped, bid fair in time to add a further decorative touch to a most attractive ensemble. The house as it is placed, is shown to the best advantage. The surroundings tend to convey an impression of more space than is really the case, and the error of too much space at one point, and not enough at another, which so often mars a really good dwelling, is here most happily avoided.

The dining-room

The approach is along a brick path that ends at a platform, reached by ascending two steps, from which access is gained to the entrance-porch — a particularly interesting example of a simple, dignified type. From here, a glazed door opens into a vestibule, and beyond leads the hallway, a conveniently arranged, and well-

Entrance-hall looking into the den

proportioned apartment. Beside the entrance, a simple staircase, with treads and cap rail of mahogany, rises in three turns to the rooms above, the second landing lighted by a broad grouped window. The finish here is white paint with two-toned gray wall hangings, affording a neutral and pleasing background for the simple furnishings.

The living-room

At the end of the hall, double glass doors open into the dining-room, which in turn connects with both the living-room and the kitchen. A large fireplace is the dominant feature of this apartment, its mantel topped with a broad-paneled backing showing an edge of dainty finish. Opposite the entrance, French doors, flanked by quaint side lights, give upon a brick-paved terrace which arrangement completes a series of broad, air-giving spaces, commencing with the entrance to the hall, and continuing with the dining-room entrance, both of which are nearly opposite the terrace approach. Soft blue walls above a high paneled white wainscot, and white trim, afford an appropriate setting for the fine mahogany equipment.

The living-room at the left of the hall, is the dwelling's largest apartment, extending the entire depth of the width. Tan and white are the colorings employed in its finish, and the cheerful impression this harmonious combination creates is enhanced by the numerous windows that light the room on three sides. A large brick fireplace graces the central portion of the outer wall at one side, and to the left broad glass doors open on to the living-porch.

Opposite the living-room entrance is the den, a cosy, convenient apartment, showing a most attractive finish. On the second floor there are four chambers, equipped with ample closet space and two bathrooms. On the third floor, there are two servants' rooms, bathroom and storage space.

Generous porches afford outdoor living-rooms

Nearly everyone who has a home garden can find a place for a mushroom bed

How To Grow Mushrooms

By William Hosea Ballou, Sc.D.

NOT only may mushrooms be grown for profit, but they may be grown for the home table, with very little trouble by reason of the fact that the truly simple "mysteries" of mushroom culture are as easily mastered as those of raising vegetables. The home grower may plan for a short season of them as of strawberries or for several seasons covering practically the year around. To me mushrooms are perennially welcome. To my mind they do more to make the breakfast egg a joy than does any other morning meal accompaniment. There are many restaurants throughout the country in which mushrooms are permanently on the menu cards for all meals. There are so many ways of cooking mushrooms that this vegetable food lends itself to an almost endless variety of prepared dishes, even to salads. In justification of one's appetite for mushrooms, and to encourage the skeptics and doubters to recognize one of the choice gifts of nature, the following is herewith quoted from a work on these edible fungi:

"The amount of digestible nutriment in a mushroom is not great, on account of the large proportion of water. This is even true of a large number of our most popular vegetables (and oysters, ninety-seven per cent water). In both cases, it is not the absolute amount of available nutriment that counts, but the part which the food plays in the dietary. In the case of mushrooms, their delicacy and flavor, the many ways in which they can be cooked, the readiness with which they combine with other foods, and especially their ability to replace the meats in large measure, give them a very high value. They bring to the table what is in quality luxury, but in cost one of the cheapest of all foods. It is hoped that a knowledge of mushrooms will become widespread, bringing with it an increase in physiological efficiency and a decrease in the cost of living."

The mushroom is one of the principal foods of European and Asiatic nations, which not only cultivate them prodigiously but collect and utilize all of the edible wild types, drying, evaporating or canning those not used on the table. It is a remarkable food in that no process of drying, evaporating or canning, however crude, in any ways seems to lead to the deterioration of the flavor, delicacy and dietetic value. From the earliest times down, the mushroom has been prized for its exclusive qualities as in the instance of the *Amarita Cæsarea,* or "Mushrooms of Cæsar," which old writers inform us were sold in ancient times for fabulous prices. Certainly this species is very rare to-day. Search as I may, I can find no origin or cause for the American popular indifference to the mushroom. Perhaps our neglect to teach in our schools more about native foods in America is partly to blame for the matter.

An outdoor mushroom bed requires careful preparation, but the results will be fully worth the effort

The mushroom may be considered as a fruit, or rather, as equivalent to a fruit food. It will be well to have this firmly rooted before trying to cultivate it.

An outdoor mushroom bed may be made near the house

All failures in mushroom culture may be laid to ignorance of that fact. Many people ask me, "Can you transplant a mushroom?" I answer, "Can you transplant an apple?" You can put an apple or a mushroom under ground but both will rot. The seeds of the apple may sprout young trees and the spores of the mushroom may germinate spawn for a future crop. An apple tree exists above ground and the mushroom tree below ground or within wood. The apple tree is strong and robust. The mushroom tree comprises little white threads in most instances, although the mycelium of some of the Polyporus genera, looks exactly like strips of white kid leather, and in the species *Sulphureus,* is fully as thick and as tough when dried out.

Knowing that in mushroom culture you are to raise an equivalent of fruit, you will go at it as intelligently as if pomiculture were involved and attain success from the start more speedily. You mix a compost in which to grow your mushroom "tree." You make the bed for it according to the size of your space. You buy your young mushroom "tree" either in form of brick spawn or virgin spawn. You distribute the spawn in a bed of compost, then water it but little, or not at all and care for it as you do the vegetable beds. Later, all you will have to do is to pick the mushrooms, as other fruit might be picked. It is perfectly simple if one goes at it with only this understanding. No explanations are necessary, only some few directions which I shall give for raising. Germination cannot be explained in a grain of wheat nor in a seedling potato. These things do germinate and that is almost all we know about it except that we know exactly how to make them germinate according to our requirements. So too with the mushroom, which, however, is not given to similar forms of germination and requires different treatment.

Another thing to remember about the mushroom is that it will not fruit indoors unless the temperature is kept at not much lower than fifty-four degrees Fahr. nor higher than sixty degrees Fahr. Ask not why; it won't! In consequence, we have mushrooms in the markets from October to June at very low prices, while during the hot months it is almost impossible to purchase them at any price and certainly at not less than $1.50 per pound. All last Summer in the resort district of the New Jersey coast, boys and girls got $1.50 a pound for all the commercial mushrooms (*Agaricus campester*) growing wild, or self-cultivated on lawns, they could gather. This suggests that outdoor Summer beds ought to be profitable, and that one should begin now to make plans for them next season. In December's market one may often purchase mushrooms of good quality for thirty-five cents a pound. After this month the prices usually advance to a dollar per pound when cold weather requires the use of more steam-heat to get the temperature of the mushroom cellars up to sixty degrees Fahr.

The professional mushroom growers make an inexcusable mistake in not installing in their Summer mushroom houses, cold storage ammonia pipes to reduce the heat of Summer to the required temperature. I have not been able to discover a single grower in America who has tried it. With a proper cold storage plant, such as one finds installed in modern apartment houses, doing away with ice largely, a mushroom farm could be made more profitable through the three hot months than during the cold nine months. It should be understood that the mushroom takes care of itself outdoors. Whatever the heat, it fruits in July, August, September and October. The cultivated mushroom, (which species also grows wild) apparently is not annual, that is, the mycelium is supposed to die when it ceases to fruit. Other deliciously wild edible mushrooms are annual and very prolific, fruiting in the same place seven or eight months per year, as for instance the *Coprinus Micaceus.* This is the best salad mushroom, but, as usual, it is still overlooked as being merely a "toadstool," although it grows everywhere.

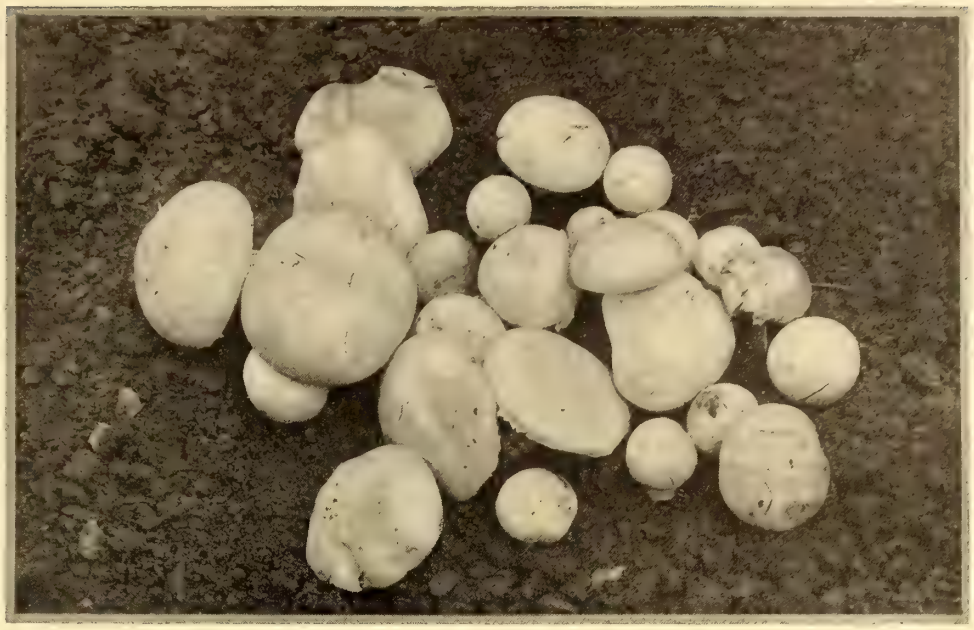
Mushroom culture is necessarily forced by use of rich compost, temperature, and by beds that are kept more or less in darkness. Every step taken in mushroom culture to-day may be said to be forced, and various methods are used from spore to spawn, and thence to fruit. Because the periodicity of the cultivated mushroom is unknown, breeders assume that the mycelium is exhausted when a season of fruiting is over, that the beds have become sterile, and that a new bedding of compost must be installed. I have ample proof that this discarded bedding reproduces again when used as a fertilizer in gardens. The mycelium of all fungi lives as long as its host, if parasitic, while the host has life; if saprophytic, while the host continues its process of decay, which may be even longer than its stage of life.

Mushroom spawn bricks may or may not reproduce. They should be purchased from a mushroom farm of first-class reputation. Virgin spawn may be preferred, but it is not to be so generally obtained in this country.

A mushroom bed for the requirements of an average home, should, wherever placed, comprise fifty square feet in

Agaricus campester, the mushroom of commerce

any shape desired, such as an oblong ten by five feet or a square seven by seven feet in dimensions. In practice all smaller beds in boxes or barrels or larger beds are based on the construction of this unit. I propose to quote the construction of the bed from the growers who have succeeded with both pure culture spawn and brick spawn, as the home grower will probably purchase his supplies direct from experienced professional growers. One of these methods is as follows:

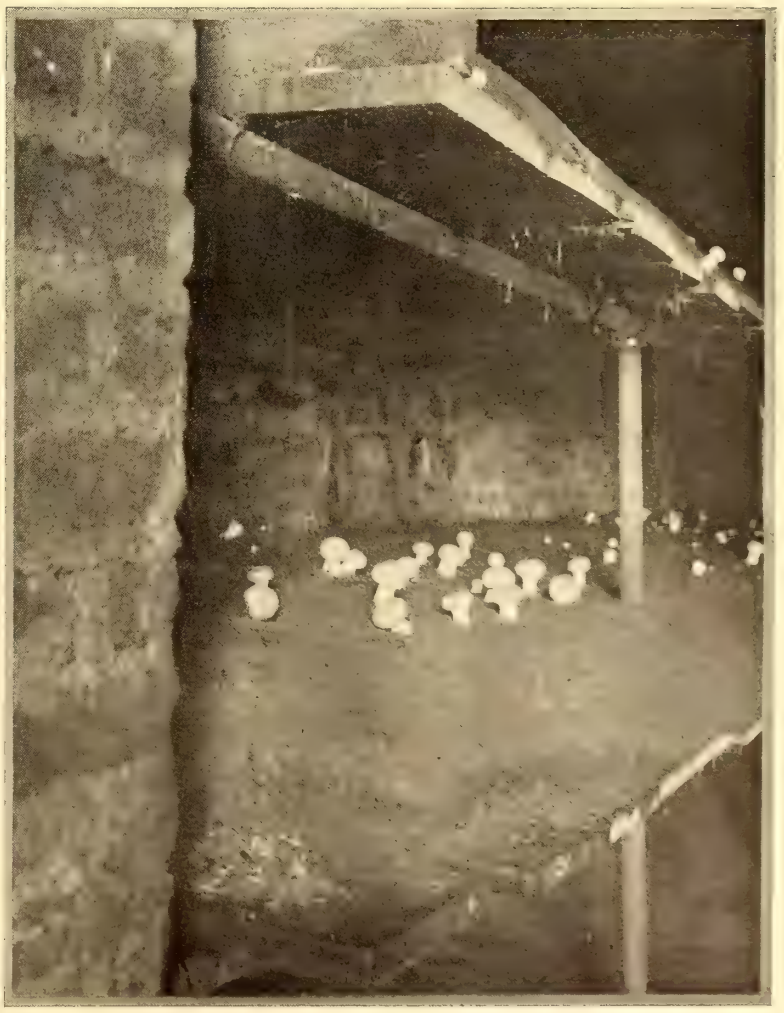


A "harvesting" of home-grown mushrooms

"Get one half cart of fresh horse manure, which costs, with hauling, $2.50, and have it placed in one heap of haystack form, outdoors in warm weather and indoors in freezing weather, or else cover over with canvas, boards or carpet to prevent freezing, and also, in wet weather, to prevent it getting too much water. As it is thrown from the cart, wet it down with garden hose, giving it as much water as possible and pack it down solid. Allow the heap to stand one week, except that after two days it should be opened sufficiently to ascertain if it is steaming and hot. It must reach a temperature up to 200 degrees before turning. At the end of a week pitch it with a fork into another heap, playing the hose on it gently this time, merely to dampen it, since it must retain moisture enough for the life of the bed to be, which must never be watered after this treatment. Tramp down the new heap reasonably hard. Let the new bed heap stand for ten to fourteen days, until the mass is of brown color. If white, it is burned up; if black, it is rotted and useless in either case and a new compost must be made. It should also be nearly odorless and entirely so twelve hours after the bed is made. The turning should cost not over $2, if done by hired help. The manure must now not be too wet and soggy nor dry. If the former, it must be put in a heap again to dry out the excess of moisture, which may require two weeks, more or less. If too dry, it must be heaped up again and moistened, to stand for three or four days.

The manure is now ready for a bed, and the flat form is preferred for culture spawn. If to be placed in a warm, heated room, lay the manure nine inches deep; if in a cold, unheated room, fourteen to eighteen inches deep, provided the temperature of the room never gets below 35 degrees Fahr. If it goes lower, the gas stove is essential and ought always to be in readiness for emergencies. Spread the manure evenly and tramp it down compact three inches with your shoes, breaking up all lumps and melting with the hose any dry or white portions. If twelve inches of manure is placed, it must be tramped down to nine inches. Rush the tramping if the weather is hot or it will heat violently and burn up. If cold, wait a day or two before tramping, to allow the manure to commence heating. Only tramp over the manure once, so as not to pack it too firmly, and leave no holes in it, making an even surface. The bed must be laid on a water-tight surface to prevent its moisture from escaping. Once laid, never water it again. The requisite amount of water must be inserted while preparing the manure and on placing it in the bed.

The new bed will require a rest of ten days or two weeks for its heat to rise and then to fall to the spawning temperature. A bed thermometer costing $1.50 is now the pulse of the situation, thrust not over 3 inches into the compost. At present the temperature should rise from 100 to 120 degrees and later decline to from 70 to 80 degrees, thus showing that your work so far is successful. When it declines to about 75 degrees it is time to plant the spawn. In hot weather it will decline slower, and in cold weather rise slower. You will receive culture spawn in a box at a cost of $2 for an amount necessary for a bed of 50 square feet. When planting, stand on the bed and back up, pushing back the box. The holes for the spawn must be 9 inches apart and about 2¾ inches deep, and made by jabbing three fingers into the bed. With the other hand insert just enough spawn to fill the hole even with the surface, breaking up any lumps of spawn. Even off and press the manure around the hole. Bored holes won't work here, nor holes made in advance. Make a hole and fill it at once. When planted, pat the bed down evenly with the back of a shovel. The bed must again be left alone for two weeks, covering it over with straw, hay, mats or sacking to prevent its drying out. Remove this material at the end of the two weeks and cover the bed with a layer of moist garden



A fruitful cellar mushroom bed of the "double-decker" sort

loam, 2½ inches thick, for the mushroom to come up through, but not for nourishment. Smooth the bed carefully with the back of a rake. The quality of the soil is not important, but it is essential to sift it through an ash sifter to remove stones, etc., and to reduce lumps. The mushroom is forming down in the compost. Selected soil will not help it a particle, its mission being purely as a cover for the bed, holding in the moisture, and as a support of the stem of the mushroom when it comes up, with a small ball on the end, which is to unroll and form a cap. Swamp or bog soil is dangerous to use for this purpose. The temperature of the interior of the mushroom bed should be kept from 50 to 60 degrees during the fruiting period, and the soil surface at from 45 to 50 degrees, and air in the room at 60 degrees. A hygrometer costing $1.50 should hang on the wall to show the amount of moisture in the air. When it registers 80 or above the air is all right. If it falls below, sprinkle the floor and walls lightly with water. Where artificial heat is applied to raise the temperature of the room or when the heat of Summer raises it too high, light sprinkling of the loam cover of the bed is in order. A whiskbroom, spray sprinkler or spray pump, the last costing $5, may be used. Remember a compost bed will retain its original moisture if you keep the loam cover just moist, not too moist nor too dry. The cover water should be 100 degrees warm in cold weather, occasionally mixed with two ounces of saltpetre to the gallon. In Summer ordinary hydrant water may be used on the bed cover. Water a bed just before it appears to be drying out. Mushrooms should begin to appear six to eight weeks after planting the spawn if these directions have been followed, otherwise they may appear any time within eight months or not at all. In other words, mushrooms are due in about three months from the day the manure arrived. This method is for virgin spawn.

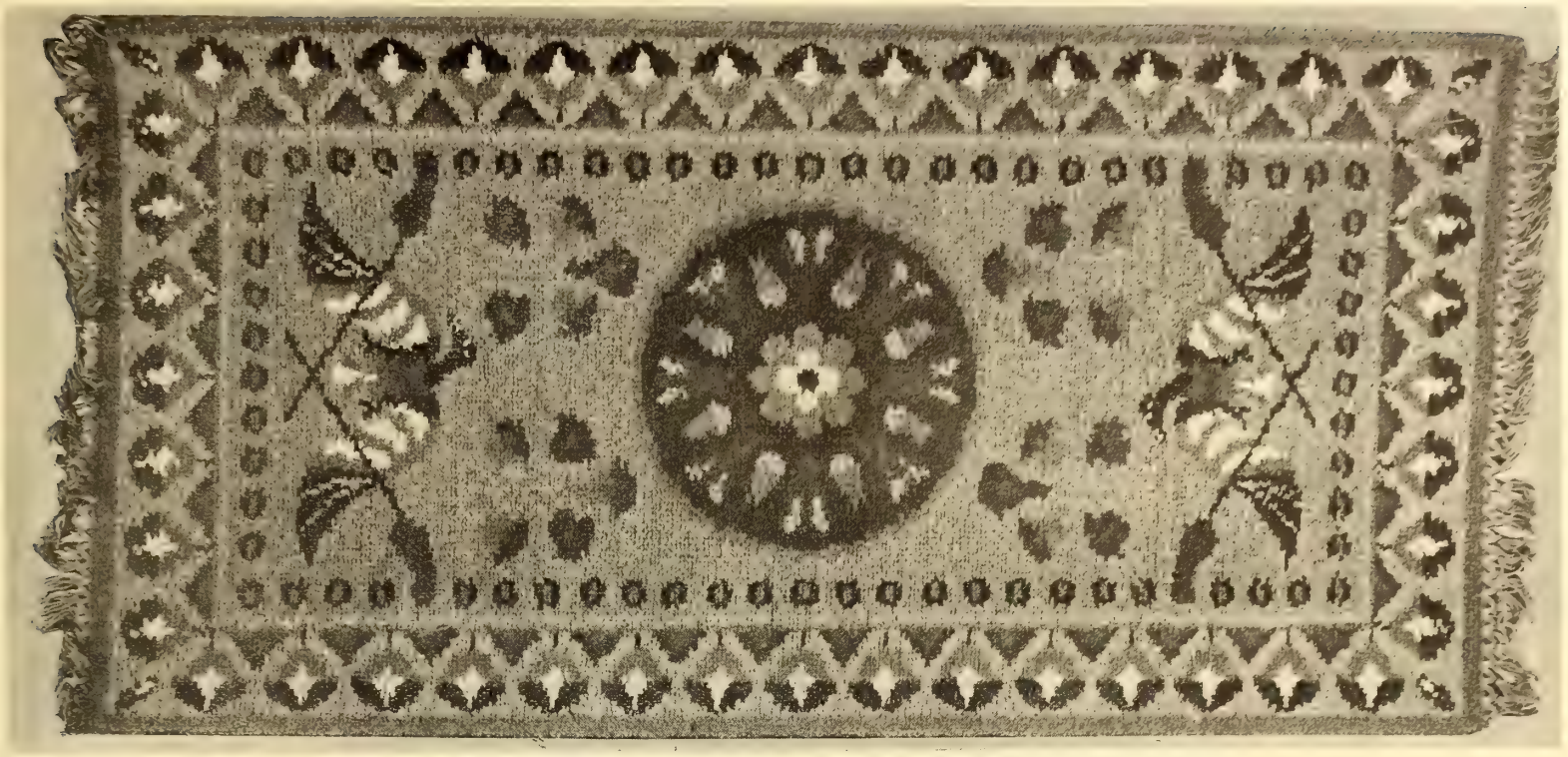
There is no material difference in preparing a bed for the reception of brick spawn. One grower advises seven bricks for a bed of 50 square feet, the cost of which is $2. These are broken into sections two inches square, or from 8 to 12 pieces per brick, inserted one to two inches deep at from ten to twelve inches apart. I have said nothing about boxing in a bed. If professionals don't do it, why should you? Mushrooms will come out on the edges of a bed properly tamped. A bed is boxed in Winter by people who hope to get through without the expenditure of an oil-stove to raise the temperature, and also propose to rely on bed covers as well as side boards.

Pick mushrooms when they are plump and fresh, just before the veil over the gills begins to break away, and as fast as they reach this condition. Pick by giving the mushroom a gentle twist, so as not to injure the mycelium, or mushroom tree below the surface. Brush off the dirt and keep in a cool place if you must, but in the stomach if possible.

Mushroom beds may be placed indoors or outdoors, but with different methods. They may be placed in cellars, caves, tunnels, stables, sheds, boxes, greenhouses and garden beds in early Spring. A piano box represents the ideal size of a mushroom bed for the ordinary table use of the home. Everybody that owns a garden should have an outdoor mushroom bed to supply the table during the season of vegetables, green corn and fruits. It can be placed anywhere. Make a stout frame of plank, like the illustration, 15 inches high. Make a bottom of mown grass or hay tramped down to an even surface. Build the mushroom bed on that. There must be a board cover, or preferably a double cellar door over the bed, fitting on the heavy frame to keep out the sun and rain. Every pleasant night take off the cover to let the dew fall on the bed and to cool and aereate it. Use the bed thermometer continually to see what the bed is doing. Mushrooms will grow plentifully out of doors without any care whatever and will take care of themselves if started properly. A friend failed to grow them in his cellar from some reason. He pitched the bed out into his back yard. Soon thereafter mushrooms began fruiting and finally spread all over his premises. They are now growing on those of neighbor's, showing that if started right they take care of their own propagation out of doors and fruit in their natural season, and inexpensively.

(*Continued on page 441*)

This outdoor mushroom bed yielded prolifically through the Summer months



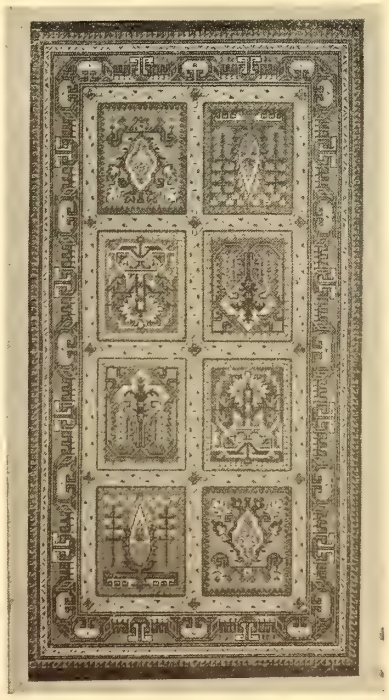
A domestic rug of this sort, measuring three by six feet, can be purchased for $5

Domestic Rugs

By Berwyn Converse
Photographs by T. C. Turner

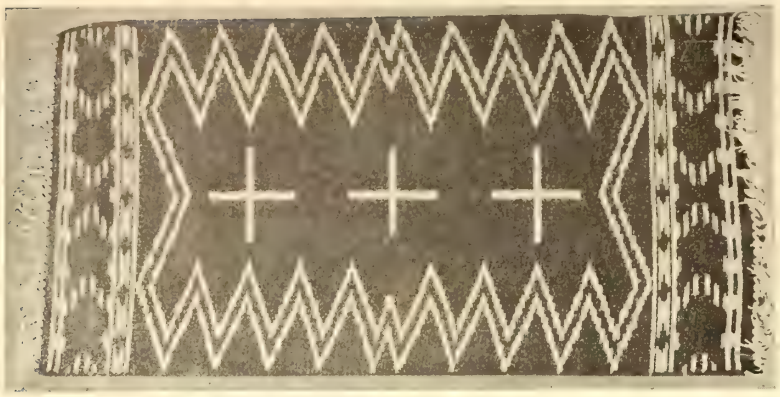
NEVER have floor coverings been more attractive and alluring to anyone fitting up a new home or in making the changes and alterations which are necessary in arranging the house for use during the long months of late Autumn, Winter and early Spring. The record of industrial progress shows no greater achievement than in the development of floor coverings and the energy and taste of the manufacturers have provided an endless assortment of carpets and rugs of all kinds and prices, and in the shops they are arranged in a way to display their utility and beauty to the greatest advantage. The subject of floor coverings is so important that it affects vitally the entire home. A wise choice will go far toward making a successful interior where an injudicious selection of patterns or colorings or an unwise choice among the many varieties to be had may easily make the home much less successful than it should be.

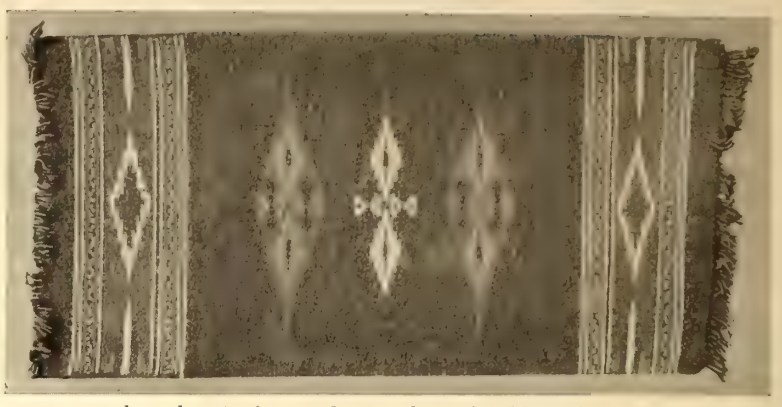
The case of rugs vs. carpets was threshed out years ago and is revived in these later days usually only where the floor to be covered is so rough, unfinished or uneven, that its painting or staining seems to be outside the range of possibility. Under these conditions nothing can be done excepting to use a carpet which covers the entire floor. Sometimes when the use of rugs is particularly desired such a floor may be covered with "filling" which is a thick and soft, but inexpensive, carpet usually plain and of some dark color which makes an excellent background for rugs which may be used in addition. Many people who must completely cover their floors use Chinese or Japanese mattings in much the same way and with the beautiful weaves and interesting colors and patterns which the clever Orientals send to our markets a very successful floor surface may be prepared for rugs of any kind. With a hardwood floor or a well-laid floor carefully painted, the case is much simpler and may be treated with much less expense.



A Persian panel domestic rug measuring twenty-seven by fifty-four inches, may be had in body Brussels for about $3

In selecting floor coverings, careful thought should be given to the character of the room, the furnishings to be used and the purpose for which it is intended for a living-room, finished and furnished in the "mission style," with leather cushioned chairs and settees, and with walls perhaps finished in rough plaster would demand a floor treatment quite different from that used in a dining-room where the woodwork is painted white, the furniture of mahogany and the walls covered with paper of a Colonial pattern. There too, exceedingly careful attention should be given to the selection of the colors used, for a floor covering should repeat the principal tones which enter into the covering of walls and ceilings and in door and window hangings as well as in such fabrics as may be used for furniture coverings and cushions. The carpet or rugs should unite walls, ceiling and furniture and this cannot well be done unless some degree of harmony be secured in this important regard. There are cases, of course, where the floor covering may be wholly different in color from anything else in the room and the successful result be due entirely to a "harmony of contrast," but such cases are not common and unless one be gifted with an infallible or highly developed color sense and a fine sense in his own idea of the fitness of things, and be also willing to abide by his choice and selection, it would not be wise to make too daring a selection of coverings for the floors of the various rooms in the house.





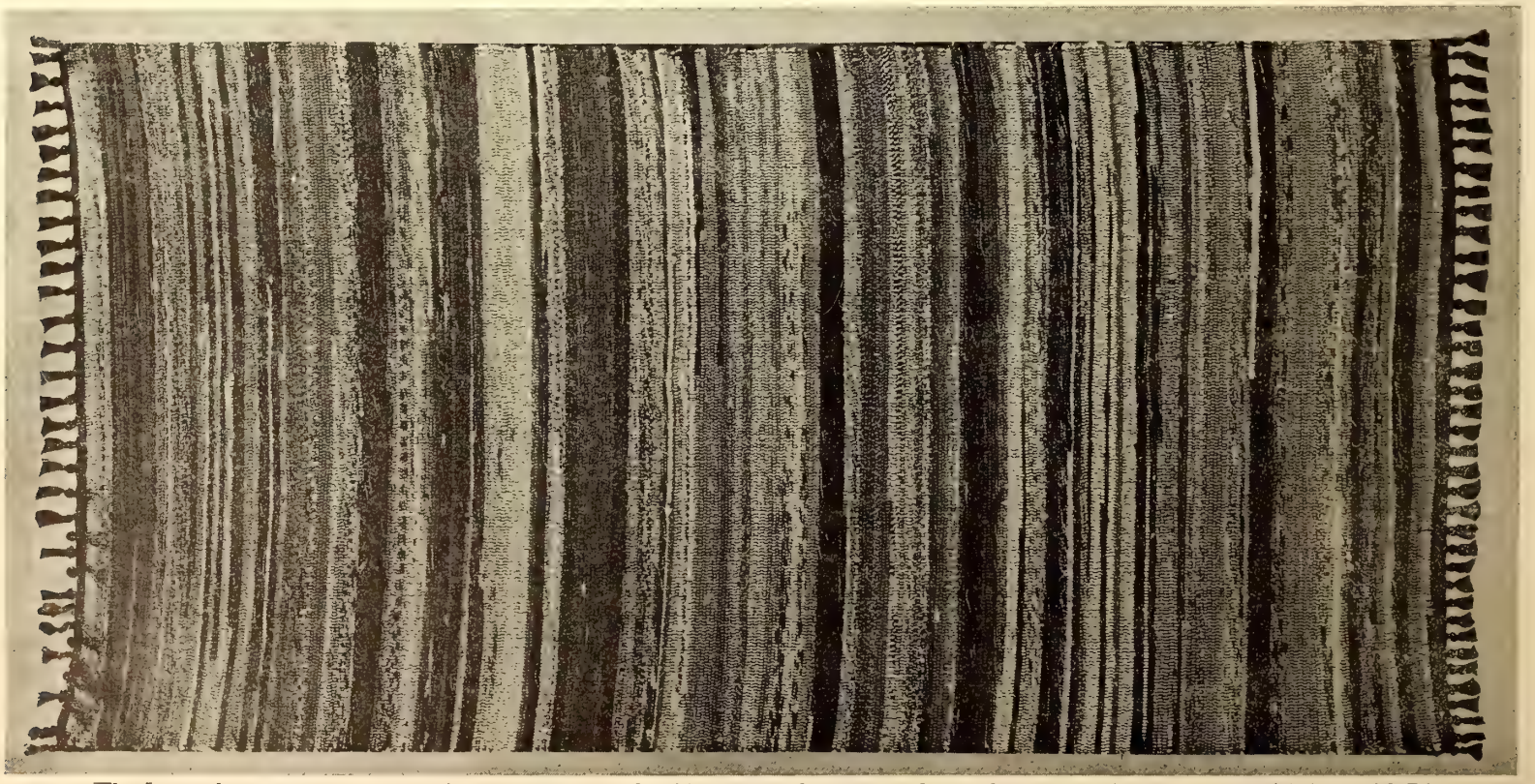
Both these domestic rugs are from Navaho patterns. They measure three by six feet and cost about $4.50 each

There is no rug which is so suitable in almost any place as the Axminster or Chenille with its richness and depth of surface and wide range of color tones. It fits in with almost any plan of decoration and makes an especially beautiful setting for many kinds of furniture. This carpet in plain or figured surfaces, may of course be bought by the yard, and for years has been woven into rugs of various small sizes. Until lately it has not been possible to manufacture rugs of larger dimensions without a seam which has, of course, greatly marred their beauty of effect, but it is now possible to weave a rug twenty feet in width and any length desired without a seam. These Chenille rugs are extremely durable on account of their fine texture and high pile, and the fabric is particularly useful as a covering for stairs, for it is so closely or tightly woven that it does not open up or "grin" at all over the edges of the steps, but retains its close and velvety regularity. Rugs of this kind are also very useful in dining-rooms for particularly in some of the plain and darker colorings their sheen and luster form an effective background for the linen, silver, china and glass used upon the table. These rugs are made in solid colors with a border of a darker tone of the same color or with a two-tone pattern which fills the body of the rug and is surrounded by a border of a solid color, usually the lighter of the tones used in the body. The rugs with the plain center or body have the effect of increasing the apparent size of the rooms where they are used.

A rug of this sort, measuring thirty-six by sixty-three inches, will cost about $8

Still another variety of these Chenille or Axminster rugs, is a reproduction of the Oriental carpets such as Khivas, Serebands, Bokharas, Hamadans and some varieties of the rugs which are woven in China. There are several grades, the difference in price being due to a slight variation in the quality of the wool used but the difference in cost as in wearing qualities is insignificant and such rugs are priced at from five dollars for the smallest size to fifty dollars for a stock pattern nine by tweve feet.

The ever-popular Wilton appears this year in a greater variety of patterns and a wider range of sizes than ever. There are many beautiful adaptation of French designs which are particularly useful for furnishing rooms of the various French periods. Some very interesting Persian patterns are also to be had, and the reproduction of Oriental patterns has been more

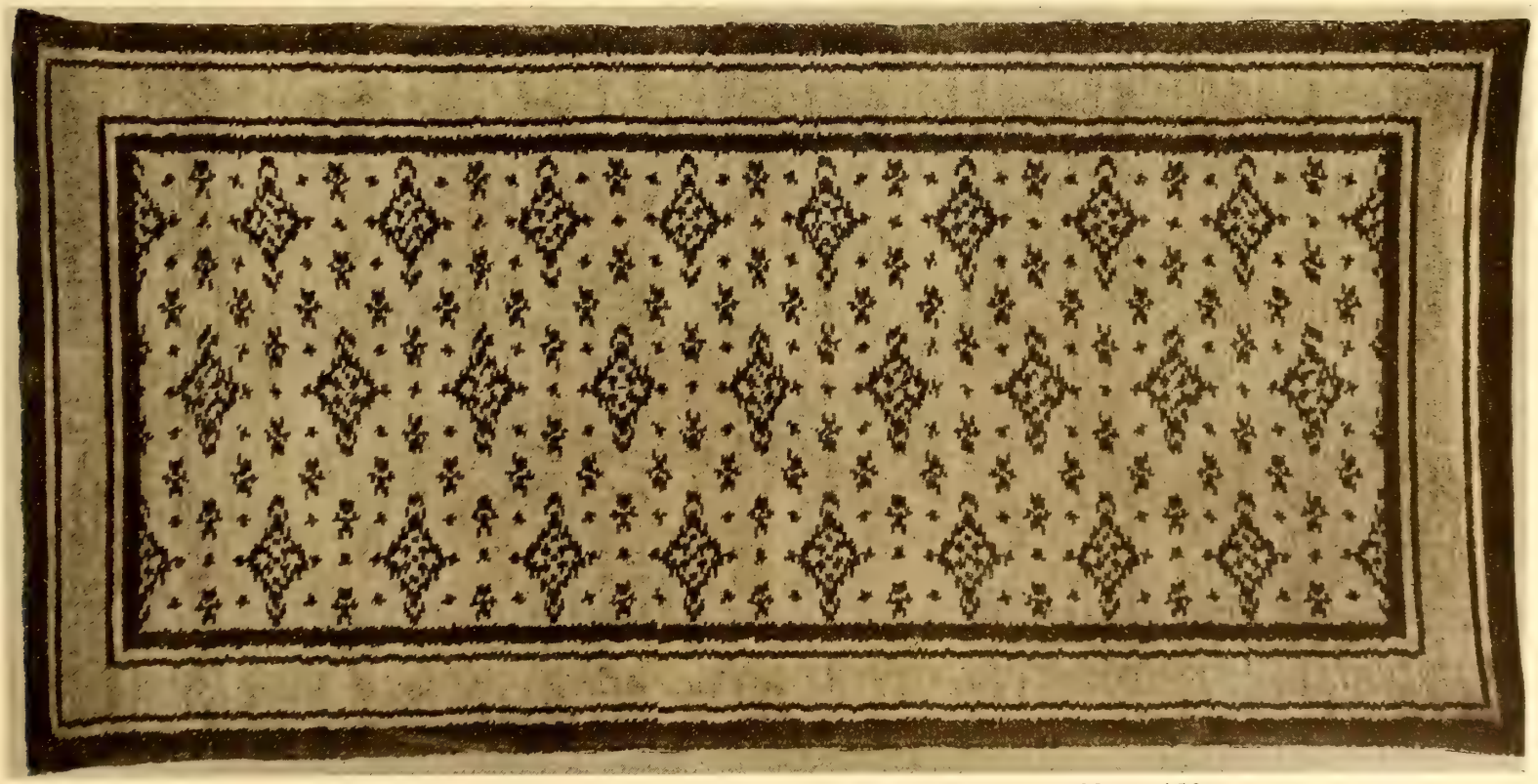


The Log-cabin rugs, vary in size from twenty-seven by fifty-four inches to nine by twelve feet, and in price from $1.10 to $9.75

A domestic rug of Kermanshah design. A rug of this sort measuring nine by twelve feet retails for about $55

skilfully done than ever before. Brussels rugs are also made in Oriental patterns and combine excellent wearing qualities with a very moderate cost which make for their increased popularity. The most desirable of all floor coverings is, of course, a genuine antique Oriental rug or carpet, but carpet wearing in the East has sadly deteriorated both in design and workmanship, in face of the enormous demand from Europe and America. Like certain forms of Japanese art it has become debased by the constant demand for novelty and the making of rugs like the carving of teakwood and the manufacture of porcelain has undergone a change, for the present generation of workmen, eager to meet the demand for something new are willing to abandon the methods which have endured for centuries, little realizing that in so doing they are really cheapening and spoiling the market they are trying so industriously to serve. Rugs which may be regarded as antiques, and which are free from this vitiating influence, are becoming exceedingly rare and excepting in the smaller sizes are very difficult to obtain. Even where they are to be had the prices are high and are rapidly growing higher and really fine examples are quickly secured for great collections and museums. They are entirely beyond the reach of the average home-maker who must be content with a modern Oriental which is also costly or a domestic rug woven in an Oriental pattern. After all, the value of an antique Oriental rug is largely due to the glamour of anything which comes to us from the old and mysterious East. Our domestic rugs which copy faithfully these Oriental patterns, and which rival the originals in their deep pile and soft mellow tones, are fully as useful for all practical purposes. They are seasonable and beau-

(*Continued on page 439*)



A seamless chenille rug of this sort, measuring nine by twelve feet, would cost $50

WITHIN THE HOUSE

SUGGESTIONS ON INTERIOR DECORATING AND NOTES OF INTEREST TO ALL WHO DESIRE TO MAKE THE HOUSE MORE BEAUTIFUL AND MORE HOMELIKE

The Editor of this Department will be glad to answer all queries from subscribers pertaining to Home Decoration. Stamps should be enclosed when a direct personal reply is desired

THE HALLWAY

By Harry Martin Yeomans

A FEW years since a desire for something new in house planning lead to a combination of the living-room and the hall, which made a wide appeal at the time and became very popular. But the pendulum has now swung back and the more sensible scheme of treating the hallway as a mere passageway, and means of communication between the various parts of the house, is to the fore again when planning the small abode. In most of the old Colonial houses this plan was adopted and is commendable in every way. It insures more privacy and allows people to enter and depart from the house without disturbing the occupants of the rooms on the ground floor, which is a great advantage over the living-room hall, and moreover, a heterogeneous collection of coats and hats cannot be seen at all times when the hallway is a factor by itself.

The hallway should not be slighted when one is planning the decorative scheme of a house, as visitors receive their first impressions here, and it should be a pleasing introduction leading up to the more important rooms. The hallway should possess a certain amount of quiet dignity and atmosphere which would seem to place a protecting barrier between you and the world of strife without.

A decorative scheme for the hallway must include the entrance door, as this feature plays an important rôle in determining the color scheme of every hallway. It is no longer necessary to be contented with the ugly front door which has a large beveled plate glass occupying the upper third, as good stock designs can now be obtained, which are very attractive with their simple panelings. An entrance door with a large sheet of plate glass in it, always presents a difficult problem of curtaining, so as to screen the hallway from the vestibule or porch, the only solution of which seems to be in running a curtain of some light wash material on two rods, which would not exclude the light. But a far better way, and one which adds to the integral decorative quality of the hallway, is to select a door in which the upper part is set with opaque leaded glass arranged in a simple design, rectangular pieces of glass set in wooden muntins, or bull eye's of bottle-green or amber glass, set in leads, are very artistic and decorative when viewed from the hallway. A door of this sort does away with the curtaining problem. In Colonial or brick houses built on Colonial lines, solid wooden doors are almost always used, but the hallway can be flooded with sunlight by having a beautiful fan-light over the door and side-lights at either side. This arrangement is most attractive both from within and without the house.

The color scheme of a hallway depends on the amount of light which it receives. A good rule is to choose a neutral color for its walls, bearing in mind that all of the other rooms open off of it and violent contrasts should be avoided between the hallway and other rooms. If your problem is to furnish a hallway which is dark, you will be able to lighten it by selecting a wall covering of écru, tan, light brown, pumpkin, gray having a suggestion of yellow in it, or sage-green, all of which combine well with ivory-white woodwork. All of the tans and browns go especially well with the brown wood stains which are being used so much just now. If the question of light is not an important one, neutral tones of green and old blue, in either plain or two-toned striped papers can be used. Papers having large and bold designs will make a small hallway appear still smaller, but one can now obtain a great number of good two-toned papers having a small design which is hardly noticeable, but which gives a slight variation to the paper which one misses in those perfectly plain.

In hallways where a Colonial effect is desired, nothing is more pleasing than one of the reproductions of the old tapestry papers which are now in the shops. The writer recently saw a hallway such as this, where a gray verdure tapestry paper was placed on the walls, running up to the cornice, the woodwork was treated to a coat of ivory paint, the ceiling being tinted the same tone. The furniture consisted of a Hepplewhite card table of mahogany, with a chair placed on either side. Over the table was an old gilt mirror and at the back of the hall stood a grandfather clock. Although this hallway was small, its tasteful and harmonious furnishings gave it a Colonial atmosphere which could be followed to advantage in many small houses.

The very nature of the function which the hallway fulfils precludes the use of pieces of furniture which are not absolutely necessary. A long table placed near the door, with a high-backed chair at either end, an umbrella stand, and a mirror over the table, are all of the furnishings which are required for the hallway of the small house. The hat-rack is no longer used. A coat-tree might be added and as the hallway is a convenient and readily accessible place for the telephone, it could be placed on a small table at the rear of the hall, with a chair conveniently at hand. For the table and chairs, a hall-seat having a hinged lid could be substituted, which would afford a convenient space for overshoes.

Attractive umbrella stands of Russian brass, blue and white Japanese ware and of turned wood, stained a dark brown, are all appropriate for the hallway. The brass and turned wood stands go especially well with mission furniture, or where the trim is of dark stained wood, while those of Japanese design look best when placed against a background of lighter tone.

A good-sized picture, appropriately framed, will look

well in the hallway, but a collection of small trivial pictures has no place there. Brown photographs of old portraits or architectural views are especially well adapted for the hall.

Two attractive hallways which the writer saw recently seemed to be almost perfect. The walls of one had been covered with a plain gray oatmeal paper, which was marked off with gray paint into rectangular spaces twenty-two inches long by eleven inches wide. This gave the effect of a Caen stone wall. All of the woodwork had been treated to a coat of gray paint, which was slightly darker in color than the walls. The ceiling was tinted a light gray and the floor was stained and waxed a dark brown. The handrail of the balustrade was of mahogany. With this severe wall treatment it was decided to use cement furniture. In the long wall space, at the foot of the stairs, a console table of ivory-colored cement was placed, the top supported by two lions. Opposite it was a long cement bench and by the entrance door stood a tall jardinière of the same material, decorated with a procession of Greek maidens bearing garlands of flowers. The jardinière was for use in holding umbrellas and canes. All of these pieces were copies of old Italian garden furniture, but they combined well with the gray walls of this hallway. Over the console table was placed a long mirror framed in flat boards and painted to match the woodwork. This hallway could have been improved if the floor had been laid with pinkish-red Dutch tiles.

The other hallway had the walls covered with a two-toned tan paper, having a small inconspicuous design. The wood trim had been painted the same color as the paper, and the ceiling was cream white. On the floor was an oriental rug in tones of olive, brown and tan. The furniture consisted of a narrow teakwood table and a straight-back chair of the same wood. This furniture was not the carved-all-over variety, which one frequently sees in oriental shops, but was built on perfectly straight lines, without any carving, but having simple Japanese fret motifs fitted into the angles where the legs joined the table top and seat of the chair. A large yellow porcelain umbrella stand added to the Japanese spirit, and on the wall opposite the table was a framed kakemono, showing a geisha girl presiding over a tea-tray. As this hallway was rather small, there was no place for growing plants, but this difficulty was overcome by hanging a pottery wall-pocket on the door-frame, leading to the dining-room, to hold flowers or foliage.

When building a new house, it is an excellent idea to have the plans include a coat closet in the hall.

A WASH-HOUSE STUDIO

(*Continued from page 425*)

thing and in another season it was an accomplished fact.

Of course the glorious vine, covering the whole tiny house, and a higher building back of it, was a running start and really necessitated a garden foreground. Also the old brick-paved yard was there, with an open space in the center. It was a comparatively easy matter to let in beds with curved borders all around the edge, marking their sides with a row of half bricks set on end.

A slight pergola was built, screening off the half of the yard that, according to the agreement, appertained to the little house. Over this, morning-glories were trained because they grow quickly and with no particular demands upon soil or expert care. Ferns were brought from the woods and planted next the house in the narrow strip that the sun did not reach. The little curved borders held Crocuses and Daffodils the next Spring, and later stout Calla-diums and Golden-Glow, for, be it remembered, the old soil of city backyards does not satisfy the needs of the tender growing annuals or that aristocratic queen of all gardens, the Rose.

It seemed indeed "too much," as one visitor remarked, that the little house should have not only a garden, but a view; but so it proved, for when they all sat in the garden the next Spring someone discovered "the poster," like a drawing in three values, a blue-black pile of broken outline etched against a glowing sky with a neutral and more distant mass balancing it on the other side of the picture. What mattered it that the castle-like mass was a jumble of tenement houses by day, that one knew the glow in the sky to be thrown up from the garish illumination of the "white way" of that part of the town? With the coming of the all-softening night there it was, as thrilling a picture of romance as any towered hill of Loire or Rhine.

DOMESTIC RUGS

Continued from page 437

tiful rugs at very moderate cost and bring the beauty designed for the favored few within almost anyone's reach.

"Homemade" rugs seem to be more attractive than ever. The old-fashioned "rag rug" is popular for use the year around in places where its quaintness and simplicity are in keeping with its surroundings. The varieties usually seen in the shops have a two-band or three-band stripe of some strong color across either end, but lately a crudely effective border showing flowers, trees or the simpler forms of animal life have been produced, but the material is almost always cotton of some form. A rug fully as pleasing, but heavier and suited to a wider range of usefulness, is the "hand-braided mat," which is likewise a heritage from the days when every home possessed its own craftsman. The material is of wool and the rugs are oval in shape, often woven in stripes of contrasting colors. The prices are higher than are asked for the old-fashioned rug, but for many uses they are so delightfully quaint that many home furnishers will be unable to resist them.

The mere suggestion of an "art square" recalls the crude attempt at rug making which characterized the output of American mills a few years ago. The time applies to an Ingrain rug which may or may not be reversible, for while they are not intended to reverse, it sometimes happens that the roughness of weave upon the wrong sides adds to their interest. The designing of these art squares is now very carefully done, and so highly is the standard of their making maintained that for some uses it would be difficult to obtain a more beautiful floor covering. Those in the different shades of gray are especially beautiful and the varieties having as borders conventionalized flower and animal figures are particularly interesting. Ingrain, of course, is a carpet without pile, and being usually much thinner than the heavier Willows and Axminsters is not quite so easily kept in place upon the floor unless it be very lightly tacked down. It is not always adapted for use in a living-room, but in a dining-room or bedroom its use is quite possible, and as it is made in some twenty-seven colors and in an immense variety of beautiful and tasteful designs and numerous sizes it is in great demand. It is very inexpensive, for the 6x9 size may be had for $7. The art square made in America compares very favorably with the similar fabrics from Scotland, and which are on sale in our shops at somewhat higher prices than are asked for our domestic products. The Scotch rugs are woven of native wool, while our American art squares are of wool imported chiefly from Russia or China, as that obtained in America is too fine for the heavy texture required in floor coverings.

Around the Garden

A MONTHLY KALENDAR OF TIMELY GARDEN OPERATIONS AND USEFUL HINTS AND SUGGESTIONS ABOUT THE HOME GARDEN AND GROUNDS

All queries will gladly be answered by the Editor. If a personal reply is desired by subscribers stamps should be enclosed therewith.

DECEMBER AND THE GARDEN

THAT the Christmas holiday and its attendant joys make us forget the bleakness of December, until we become reconciled to the advent of Winter is a compensation that helps us to forgive Jack Frost, the irresponsible. I am not sure but that the fine, wide stretches of clean white snow are not for a little while a pleasant relief from Summer's luxuriantly green landscape. Every season brings with it those changes in aspect which man should learn to understand, to appreciate and to love. Our poets have sung of the Springtime, our artists have immortalized the color of Summer, but just as truly the legend of Kris-Kringle has endeared the crackling snow-time to our hearts, if we have not forgotten the days of our childhood's belief in Santa Claus's reindeer, Frau Holle of the Brothers Grimm, the Snow Queens and the Ice Kings of dear old Hans Anderson of tender memory.

Rockwork for garden nooks and corners can be planned now

NOT in every part of the country will it be possible to gaze out upon field, hedge and road decked in the traditional and sparkling array pictured by the Christmas card painter, and in the warmer sections of the country, our yards and gardens will be sere-brown instead of white until the coming of January. Where the snow-carpet has not covered our garden beds there is still left to be done a little outdoor work in the garden. Trees, shrubs and vines should be mulched. This will prevent the havoc consequent to alternate thaws and frosts which will inevitably damage unmulched shrubbery in cold climates. Then the tree should be looked after and all dead limbs sawed off, and pruning may be extended to the grape-vines. If your garden suffered from a visitation of tent caterpillars and there are any wild cherry trees on the premises, cut these down now, and next season you will probably find the garden freed from the bothersome pest. Tree-surgery has been intelligently developed and all garden lovers are urged to interest themselves in the subject. There is no gift of nature more generous than the life of a fine tree. Carefully inspect the home-grounds and examine every tree, not neglecting now to take the steps necessary for its preservation.

KILLING WEEDS ON LAWNS

READERS of AMERICAN HOMES AND GARDENS who keep a garden "recipe" scrap-book will be glad to have for use next season the following information concerning weeds on lawns, contributed by a garden enthusiast. "I have experimented," he writes, "with both sulphate of ammonia and sulphate of iron as effective cures for the weed, *Prunella vulgaris* that disfigures many lawns. The latter chemical is cheaper than the former, but the sulphate of ammonia is, to my mind, more effective, inasmuch as it also encourages grass growth. The method of weed destroying with these chemicals is to pulverize the crystals of sulphate and sprinkle the powder rather thickly over the weedy spots during a *dry* spell. The blackened patch resulting from the treatment will, in turn, when the grass has taken its new growth, be green and free from the unsightly weed."

FLOWERS THE BEES LIKE

AN article on "Bee Keeping as a Pastime," which appeared on Page 63 of the February, 1912, issue of AMERICAN HOMES AND GARDENS, occasioned several appreciative letters addressed to the Editor. Among them was one containing a paragraph clipped from an English periodical of such interest that it is worth quoting here:

"THE garden lover generally delights in seeing bees in the garden, although he may not care to keep hives of his own. It is cheerful and pleasant to hear their hum, as we wander among our flowers; and many of our plants set their seeds more freely if these industrious insects fertilize them as they pass from flower to flower, carrying with them the exceedingly fine yellow dust of the precious pollen."

"IN planting flowers for bees, it is better to have considerable numbers of their favorites, and to employ such as are in bloom in seasons other than those at which they can procure honey from other sources, such as in the time of the Lime or the Heather. But a breadth of their favorite plants near the hive will be useful in weather which is not settled enough to suit the bees reaching their gathering grounds and returning in safety."

A garden bench of good design

"AMONG the most useful bee plants in some districts is the annual Limnanthes Douglasi, which is easily raised from seeds sown in Spring or in Autumn. Mignonette is also a favorite with the bees, although it does not do well in every garden. A general favorite is the Borage, Borage officinalis, likewise raised from seeds annually. The Cornflower is valuable for bees, and is useful for cutting, the blue variety being the most generally appreciated for this purpose. Sweet Scabious, Scabiosa atro-purpurea, treated as a hardy or half-hardy annual, is excellent, both for bees and as cut flowers for the home. Alyssum maritimum, the Sweet Alyssum (also known as Kœniga maritima), is a plant of which the insects are fond, and it may be sown in Spring or Autumn. The Phacelia is very good for bees; and *Cerinthe Major, Whitlavia grandiflora,* and Candytuft, are all excellent annuals. So are Stocks, Sweet Peas, Clarkias, annual Lupins, *Ambrosia mexicana,* the Tropæolums (such as the common Nasturtiums, and *T. Lobbianum*), together with *Phlox Drummondi,* and *Collomia coccinea.* Wallflowers ought not to be overlooked; and the perennial Arabises, *Albida* and *Alpina,* are indispensable for the bees in the early season. They frequent the Aubrietia to some extent, but not so much as the Arabis. Crocuses, Scillas and Snowdrops are among the useful bulbous plants, so that an ample choice is available, in addition to the many other plants not much grown in quantity which the bees find out for themselves, and which supply them with their requirements, while at the same time giving pleasure to the lover of the garden."

ANTIQUE SHIP MODELS

(*Continued from page 422*)

perhaps, is the Viking ship of the tenth century which is shown on page 421. This model, as far as possible, combines accuracy of detail with beauty of effect, and has been studied from the wonderfully preserved Viking ship dug up at Gokstad, Norway, in 1880. The decoration is in vivid colors, both hull and sail being decorated with alternate red and white stripes, while the shields which line the sides are black and yellow, many of them being embellished with rude heraldic devices. The carving on the sides and upon the rudder or steering oar is authentic in design, and the green serpent displayed upon the sail and repeated upon the flag and the gilded weather vane give the ship its name—"Langeornir"—"Long Serpent," a favorite name for Norse ships of that time.

Several of the other pictures show various forms of galleons such as were used during the fifteenth century, but in building them Mr. Culver has departed somewhat from accuracy of detail both in decoration and design to obtain the increased beauty of effect which is the result of slightly exaggerating certain proportions. These models have been built to hang some eight or ten feet from the floor, and by enlarging the size of sails, rigging and all the parts which one would naturally notice in seeing a ship at a distance, the appearance is that of a vessel under full sail. Other departures from accuracy are in arrangement of sails and rigging, all deviations being made in favor of heightened beauty of effect. The hulls of these mediæval galleons are painted in stripes, the coloring being greatly dulled or toned down to simulate the effect of age and exposure; the coloring and gilding are also somewhat "aged," and sails and rigging are judiciously "antique."

The photograph reproduced upon page 422 shows a model unrigged, this being patterned after an English vessel of the seventeenth century without exaggerating any of the coloring or rigging, the idea being to produce an accurate as well as an artistic model. The appearance of this little ship may perhaps not be as striking as in the instance where accuracy has given way to artistic effect, but nevertheless it is extremely elaborate and dainty and there is a spirit of reality and "ship-shapeness" about her that appeals strongly to anyone who loves the salt sea air.

A study of these little models teaches much history unawares, for the history of a nation upon land is influenced greatly by her sons upon the high seas, and the ships in which they sailed in ages past have in many cases influenced the times in which we live.

HOW TO GROW MUSHROOMS

(*Continued from page 434*)

A good place for home mushroom beds is in greenhouses, under the stages on which the plants are arranged. Roses above, mushrooms below. Why not? The stages and some straw protect them from the sun and light and the temperature in the cool to cold months should be about right for them. If it is desired to place the mushroom beds in vacant rooms of house, barn or shed, the floor may be protected from damage by laying on it vulcanite rubber roofing paper, continued up the walls for two feet.

Mushrooms require for growth, moisture, not wetness or dryness. In sprinkling use a rose cup to reduce the supply of water properly. An insecticide and sprayer device is desirable. Once in five days spray the beds to drive away flies, to kill insects and to destroy their eggs. Mushroom beds in houses or cellars may be heated in Winter sufficiently by means of oil-stoves in localities where other forms of heating are wanting.

I have simplified mushroom culture down to the household requirements, so as to induce amateurs to grow them for home consumption, that vast majority who either buy mushrooms or go without, or who raise vegetables with much more trouble. From this point it is but a step to raising mushrooms for profit or as a means to acquire a small fortune. The mushroom house of the near future should be made of concrete with heavy walls, to keep down the heat of Summer. This is the true solution of the problem,

HELPS TO THE HOUSEWIFE

TABLE AND HOUSEHOLD SUGGESTIONS OF INTEREST TO EVERY HOUSEKEEPER AND HOUSEWIFE

CHRISTMAS GIVING

By Elizabeth Atwood

THE most pleasurable Christmas shopping that I have ever done, was, when with a little chubby hand in each of mine I went forth to guide the two owners of these hands through shop after shop, when they went forth to buy presents for their own givings, that were to be those entirely their own to give. They had been saving their pennies for a long time, and living far out of town, they knew nothing of the hardships of Christmas shopping. It was all pure joy to them.

Each had a whole dollar to spend, a large amount in their eyes. There were five to whom they wished to give, wherefore much considering was necessary, especially as each diminuitive shopper insisted that the whole of twenty-five cents must be paid for mother's present. The maid and the man servant came next in the order of planned disbursements, "for they will not have so much as the rest of us, you know."

Then the giggles and the whispers when I exclaimed over the beauty of a pitcher which I knew to cost just twenty-five cents. (I have it now.) Then the adroit means which they took to make me rest out of sight of that particular counter. The good, tired clerk did the pitcher up so that you would never guess from its shape what that parcel contained. Their only real anxiety being ended, their shopping became one grand carnival of pleasure. They had not learned the harm of money-value in their Christmas buying.

If only some strong heart and hand might lead our after years through the mazes of Christmas and Christmas giving! Some strong sense of love combined with fitness, some strong mind, strong enough to convince us that giving of great money value does not always bring happiness to either the giver or the one who is to receive the gift. In fact, if only more love might come into our giving and less of commercial barter (am I hard, think you), much of the anguish of Christmas would be lost.

I suppose there is hardly a woman or a girl who is not more or less troubled as the Christmas season draws near. Men and boys seem to care less, for whatever they do for their friends is done by buying the best which they can afford. There may be a feeling of disappointment in the man's mind when he finds that he must be content with a small gift for wife, mother or child, when he would so much enjoy doing more, but that feeling soon passes away.

We are constantly meeting new people, new friendships are formed every year, and if all are to be remembered with a gift at Christmas time, one's list becomes very formidable. There is pleasure in all this up to a certain point, when one's time is limited and one's pocketbook even more limited, this pleasure becomes a veritable nightmare. The struggle to make five dollars do the work of fifty is enough to add gray hairs and turn the joy of Christmas into pain.

There is a fitness often lost sight of, like the friend, poor in money but of large heart, who spent hours and hours embroidering a gift for me. Full well I know the strain it had been to her poor eyes, and that the time she took for that piece of work should have been spent taking a much needed rest. "But I enjoyed doing it for you because I love you," she told me, "and just because I love you I wish you had not," I answered.

What we wish most of all is to be remembered, just to be given a loving thought or word. To feel and to know that on this day so many loved ones are thinking of us. Does it take extravagant gifts to prove this? A letter, a card, a photograph—what pleasure we derive from receiving them. The loving thoughts expressed in a letter mean a great deal, quite as much as the gift which has called for the use of so much vital force, or stringent economy.

It is deplorable to watch the misery of acceptance grow in the child, when the spirit of exchange in value takes the place of loving giving. Children can teach us much in the way of Christmas love. They give for the pure joy of giving, for Santa Claus will care for them. Perhaps the natural selfishness comes in, just in this sure feeling that they will be remembered. As children we talk to them of Christmas love, as they grow older do we not, too, help to bring in this feeling of exchange when called upon to help decide upon the gifts they are to make?

Love should be the keynote of all Christmas giving. Love, not just the love for mother, but love spreading out over all, creating a spirit of optimism and joy. Love, which will develop all the year, finding Christmas a beautiful time, not one of self-imposed trials. These perfunctory martyrs to custom who return gifts of like value, whether they can afford to or not, these are the ones to be pitied, for they do much to kill the love-spirit of Christmas time.

One way to develop the loving spirit of giving is to think and plan for some one who is less fortunate than your children or you. Point the way to the thoughtless rollicking boy or girl of your family or acquaintance, of the making of one person happy, who, but for their thought would have been forgotten. It does not need to be a large gift nor a costly one, but the thought that some one in the world had in mind such loneliness and deprivation may brighten, for one day at least, the darkest and saddest life.

This should be the main work of Christmas. It blesses the giver as well as the recipient. It increases and revivifies the love in your own heart. The gift may be only a holly wreath or a "Merry Christmas" from jolly children, but the loving thought is there to be remembered. That will reach any heart, however pessimistic, when real Christmas love and cheer go with it, and weigh more than a costly one.

Christmas love is a delicate thing, and we mothers must have a care how we nurture it, and prevent the mercenary thought from coming in.

Probably there is no one living who does not know many who are worse off than they. There are thousands who would be glad of a heartfelt call of "Merry Christmas." A few flowers will keep the cheer of the day in a room. A little box of candy will keep the thought of the day. If you know of but one such lonely person, make every sacrifice that may have to be made, but in some way remember that person.

We talk of utility presents, give them too where you can, but it is the dear little frivolous something that lifts the mind from the sordid cares of every day. Help your children to realize this, and help them to find some poor child or some poor family. Have them share their Christmas nuts and candy. What is left will have a better flavor, for love will have seasoned it.

We can prate and talk about Christmas love and Christmas spirit, we can plan and give according to our means, we can develop the love of giving in our children, but, after all, the real thing lies quite as much in the Christmas-spirit of receiving. Our attitude toward Christmas is becoming too critical. We are prone to consider values in one way or another when the gifts arrive. Is this Christmas love?

In our own generosity, with love unbounded we send a gift more or less costly either of time or money, to one we love, and who has far less to do than we have. In our personal joy of giving we forget that this dear friend may suffer in the receiving of our gift. "It is more blessed to give than receive" may be true, sometimes. I doubt it, surely it is far easier, but in the joy of giving we should surely study out the possible pain of receiving and try to avoid giving that pain too. This is what I call "fitness" in giving. When one is full of love it is no trial to give thought to the personal desires of the one to whom the gift is to be sent. There is a deal of pride creeping into our giving. This it is which prompts the giving that is pretty sure to hurt. Put an X-ray on yourself and your motives with merciless candor before sending out your gifts, then put yourself in the place of those who are recipients of your loving thoughts—and make very sure that the thoughts are loving.

Why not try to be as simple as children in our joys? Why not learn the lesson of simple giving and practice it, while teaching it to our little ones? This simple lesson of love, which down in our hearts we do believe in, should be even more real to us for we know and understand more of its source and force.

My little grand-daughters under the wise guidance of their mother gave me a useful and beautiful gift representing work which any child over five and under ten might do. It was a "kitchen shower."

Spread out it covered a good-sized table. There was a simple rosy muslin bag tied with ribbon to match, to hold strings of all kinds, which the New England housekeeper dislikes to cut and throw away. It was very pretty, I thought it too delicate to hang in the kitchen, but, after two years of use it still does service and is always pretty.

There were half a dozen cheesecloth "dusters," these might have been feather-stitched to make them prettier, but were not as we consider such work useless. Then half a dozen glass-towels barred with pink to keep the color scheme, half a dozen hand towels with loops, all ready to hang by the sink, half a dozen holders covered with pink gingham and half a dozen broom-bags made of two thicknesses of cotton-flannel with strings run in the top to fasten each to the broom. These bags I use all the time to sweep bare floors, keeping a dressed broom on each floor of the house.

Here is my idea of the loving thought and loving service. There are many lessons which might be taught through the medium of such a gift. Truly a present of utility, with a little of the frivolous in the matter of pink holders and rosy string-bags, but a gift enjoyed every day, bringing fancies to my mind and sweet thoughts of the time when their mother was the little girl to give me presents.

TWO CHRISTMAS SUGGESTIONS

By MARY H. NORTHEND

A Santa Claus Christmas design for icing cakes, and a snowball cocoanut iced cake

Fireplace Cakes: Cut with an oblong cutter a rich cookie dough, and cover smoothly with icing. When cool, draw in a fireplace with a harmless vegetable coloring in red, thus carrying out the Christmas effect of red and white. Decorate with little fir twigs. Cookies: One half cup butter, one of sugar, two and one half of flour, one half teaspoon of saleratus, dissolved in two of milk, one egg; flavor to taste. Roll thick, cut in oblongs, and bake quickly

Snowball Cakes: Make an angel food cake as follows: Beat together till stiff whites of eleven eggs with one and three quarter cupfuls of sifted granulated sugar and one teaspoonful of cream tartar, then one cupful of flour and one teaspoonful of vanilla. Bake in a moderate oven forty minutes. When cold, cut off all the brown outside of the cake and with a fork take out fairly good-sized pieces. Roll these in soft white frosting, and when set, sprinkle with granulated sugar. Decorate with holly, the leaves cut from citron, and cranberries or candied cherries for the berries.

For ten years I have used a scrap pail (it may not be called basket) made from a small butter firkin. Another little girl, with loving patience painted a band of poincettas and then burned a background for them. Pyrography may turn common things into something beautiful, besides enduring.

Real love in our hearts and a sympathetic understanding of those whom we wish to remember, will turn the season into one of real joy, and the Christmas of childhood will come back to us.

WITHIN "THE HEDGES" AT ROSEMONT

(*Continued from page 415*)

that terrible Winter of 1777-1778 at Valley Forge. A green postern door in a vine-covered wall at one side, gives access to the kitchen wing and the drying-garth for the clothes. The hedge around the garth is eight feet or more high so that clothes-lines and drying linen are never visible. Augustus J. C. Hare is responsible for the green postern door as something in his "Rambles in Rome" suggested it to the mistress of "The Hedges" and she forwith put it on her list of desiderata. A flight of steps made of rough-hewn railroad ties embedded in the grass ascends the terrace to the porch. Beyond the western hedge and a little down the slope of the lawn is a grove so planted as to make a tea-house beneath the shade of the branches. For all it is an attractive place it is seldom used for the purpose it was designed for. The master of the house with undeniable logic says "When the house is properly screened and when the porch is so pleasant why go out and have tea with the insects?"

Indoors, the excellences of "The Hedges" are just as striking as they are outside. On the very threshold we see that the hall is paved with square red quarry tiles and the same flooring is carried into the dining-room. Both in point of cleanliness and color this treatment is highly satisfactory. Opposite the entrance door is another door at the far end of the hall, giving on the great porch already referred to, and the vista through the house and into the garden beyond forms a picture of rare beauty. The woodwork of the hall and, in fact, in all the rooms downstairs, is unpainted and treated instead with a stain to deepen its natural hue. As the beams and rafters are all visible and the walls are neutral or putty-colored an excellent effect is produced.

To your left, as you enter, a wide doorway opens with one step down into the most cheerful of living-rooms, with windows on three sides, for it takes up the whole north-western end of the house. A fireplace with ingle seats built in beneath a great projecting chimney-jamb fills all the north side of the room, except at the sides, where two flanking French windows open on the porch. The fireplace is arched with brick and the hearth is paved with octagonal Moravian tiles which, thanks to frequent moppings with milk, have taken on the rich shades of old leather. Nothing could bestow an air of more solid comfort, nothing could better emphasize the dignity of the hearth as the central point of family life, than the arrangement of this fireplace.

On the west side a range of three French windows opening on the porch is balanced on the east by the windows above a built-in settle that could seat the "old woman that lived in a shoe" and all her children. The windows over the settle have inside batten shutters of dark wood that give an unusual but pleasant effect against the putty-gray wall. This same neutral wall is an excellent foil for any bright bit of drapery or brass or for the spikes of Hollyhocks, Larkspur or Lupin that usually grace the room. The furnishings are simple but elegant and the lighting fixtures are so arranged that you are never painfully conscious of them.

In the dining-room the shelves over the fireplace hold a collection of delightful odds and ends of pottery that add an indescribable kaleidoscopic mass of color that nothing else can give. They are nearly all heirlooms or curios that one would never think of using, but without these household godkins one really wouldn't be quite happy. Back of the dining-room is a spacious pantry, back of that a bright sunny dining-room for the servants and back of that again the kitchen. This kitchen is one of the notable features of the house. There is nothing above it and from the floor to the ridge of its pitch roof the space is entirely open but for the occasional timber braces. This open space, well ventilated, and the hood over the range effectually prevent any smell of cooking from penetrating to the rest of the house. That unutterable concoction, *sauer-kraut,* could be cooked with impunity; no one would ever be the wiser. Beneath the kitchen and maids' dining-room are ample laundry accommodations.

At the landing of the stairs, just before reaching the level of the second floor, is a "snuggery"—it would not be right to call it a room for it is not—where the family can and do sit and bask in the light of a range of casement windows overlooking the garden. On the second floor are five bedrooms and two baths so arranged with inter-communicating doors that one can pass from one end of the house to the other without once stepping into the hall. Several of the bedchambers have fireplaces and one where a settle has been built against the wall and a ship's porthole let in above it is particularly engaging and cosy.

All the woodwork of the bedrooms is painted white and the doors throughout the house have flush panels. Their severe simplicity is remarkably pleasing and they offer no place for dust to collect. That consideration was what really first suggested them. Long black iron strap hinges and black locks with brass doorknobs, saved from the wreck of a dismantled Colonial house, mark the doors with picturesque distinction. Abundant storage room in capacious closets and in the space under the eaves will appeal to the heart of thrifty housekeepers.

On the third floor the rooms are well lighted and, more than that, well ventilated, so that they are far cooler in hot weather than one might fancy from their position under the roof. The furnishing of all the bedrooms is wisely, simple and light without anything to cluster and make them stuffy. Commonsense combined with good taste is the keynote of "The Hedges" and this happy combination has achieved most satisfying results both indoors and out. With such an example of old Pennsylvania barn architecture to follow it would be small wonder if the ranks of barn-dwellers were to make rapid increase, and prove in coming granary transmutations, that in material as in ideals we live in the past.

ACTION OF SHRIMP ON TIN

THE popular idea that only acid substances attack tin is a fallacious one. Fish, asparagus, beans, pumpkin and spinach are not acid and yet their corrosion of tin is quite marked. This is probably due to the presence of amino compounds, substances related to ammonia. In the case of shrimp, the cans are often eaten through in a comparatively short time. So alkaline is the methylamine contained in the shrimp that workmen in the canneries find the skin peeling off their hands and their shoes eaten through. Shrewd observation by some canners led to the discovery that if the shrimp were iced for a day before canning the corrosive action of the juices was greatly diminished. This is now the universal practice.

HANDWORK BY CHILDREN IN AMSTERDAM

A RECENT exposition of hand-made articles at the Amsterdam City Museum indicated that ninety-nine per cent of children who are given an opportunity to do handwork manifest a creative faculty and a disposition to create things. Children make all kinds of articies in clay and cardboard, while older ones also produce articles from wood and metal. In some Amsterdam schools handwork is introduced between instruction in the usual studies and is found to teach the children to observe, to train their memories, to make the hands skilful, and to create a liking for art and ornamentation. There is a society in this country to examine would-be teachers of handwork. Those passing are given certificates for clay and cardboard work, for woodwork, etc. Such certificates are required by the government in appointing teachers for institutions for feeble-minded persons and also for some other institutions. The society mentioned has annual courses of instruction for teachers, and is assisted financially by the government. During the recent exposition a series of meetings were held, at which artists, persons of technical pursuits, and others interested discussed the best ways and means of handwork instruction for prospective teachers.

ACCIDENT PREVENTION EXHIBIT

A PERMANENT exposition, which should be of interest to everyone, has been opened in Copenhagen and has for an object to exhibit the latest devices and measures to prevent accidents and injuries to workmen. It is projected by the Danish Association for the Protection of Workmen, and is aided by the factories and firms furnishing the apparatus. It contains exhibits looking to the prevention of accidents by power raising, transmission, and working machines, as well as measures looking to the carrying through of regulations relating to factories; also statistics and literature. It includes an exhibition of water gages illustrating measures to be taken in attending steam boilers, and an instructive collection for the enlightenment of the worker on dangers incident to steam boilers. The protection of workmen consists not only in means for protecting them from mechanical injury, but also the improvements of conditions generally looking to their health, and it is the intention to change the exhibits from time to time so that they will illustrate advancements which may be made toward the end in view.

ELECTRICAL CHRISTMAS GIFTS

ELECTRICITY contributes a surprising number of gift articles for serious use, for convenience and for amusement—a considerable increase for the holiday season of 1912. A recently published list comprises over 125 of such special articles in which small amounts of electric current are transformed into light, heat or power, the varying applications showing the extent to which electricity has entered home life. Electric heating and cooking devices and appliances for saving labor in the household head a list of "gifts for women." Then there are about thirty electrical toys for children, appealing mainly to boys, of course. Over twenty other articles suitable for men are made, and almost as many again for bedroom and nursery comfort.

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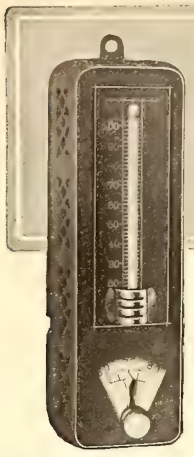

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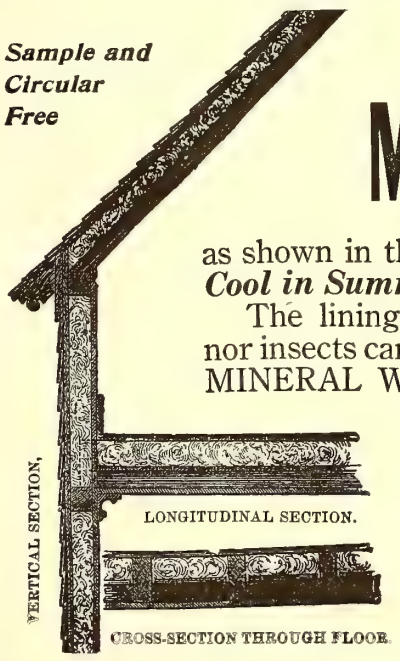

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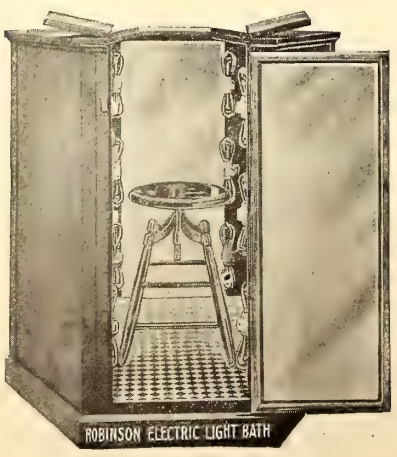


BUILDING IN THE BIG CITIES

REPORTS from 120 cities of the United States for the year 1911 received by *Bradstreet's* show an aggregate expenditure for projected buildings of $824,088,000, as against $846,712,000 in 1910, and $889,723,000 in 1909.

Of the aggregate building expenditures of the country, New York city furnished in 1911 $188,933,000, or twenty-two per cent. as against twenty-four per cent. in 1910, and thirty per cent. in 1909.

These declining percentages presuppose decreases at the metropolis both from 1910 and 1909, and this proves to be the case, as New York's total fell seven per cent. from 1910 and 2.8 per cent. from 1909. It might be noted that this tendency is not uniform in all boroughs, however, as Manhattan showed a gain over 1910, as did Queens Borough also, while all boroughs except Queens fell off from 1909, which was the record year for the city as a whole.

Chicago is the only other city of the country which furnishes a total building expenditure in excess of $100,000,000, the aggregate for 1911 being $105,269,000, a gain of eight per cent. over 1910, and of fifteen per cent. over 1909. Chicago's proportion of the country's building in 1911 was twelve per cent., as against eleven per cent. in 1910 and 1909. Of the other large building centers of the country, Philadelphia, with an expenditure of $39,970,000, shows a slight gain over 1910, but a slight loss from 1909. Los Angeles, fourth city in building in 1911, shows an expenditure of $22,947,000, a gain of six per cent. over 1910, but of seventy per cent. over 1909. San Francisco, with an expenditure of $20,915,000, comes fifth in the matter of value of building, with a gain of six per cent. over 1910, but a decline of twenty-six per cent. from 1909. Other cities having expenditures in excess of $15,000,000 in 1911 were Boston, Portland, Ore.; Detroit, St. Louis, Cleveland and Washington, in the order named. Minneapolis, Kansas City, Milwaukee, Pittsburgh, Cincinnati, Newark, N. J., and Buffalo show expenditures in excess of $10,000,000 each.

FORECASTING THE WEATHER

THE following formula of weather signs, says the *Christian Herald Almanac,* was adopted by the Farmers' Club of the American Institute some years ago, and it has been found to give satisfaction:

When the temperature falls suddenly, there is a storm forming south of you. When the temperature rises suddenly, there is a storm forming north of you. The wind always blows from a region of fair weather towards a point where a storm is forming. Cirrus clouds always move from a region where a storm is in progress to one of fair weather. Cumulus clouds always come from a region where a storm is forming. When cirrus clouds are moving rapidly from the north or northeast, no matter how cold it is, there will be rain within twenty-four hours. When cirrus clouds are moving rapidly from south or southeast, there will be a hailstorm on the morrow, if it be in the Summer, and if it be in the Winter, there will be snow. The wind always blows about a storm in a circle; when it blows from the north, the heaviest rain is east of you; if it blows from the south, the heaviest rain is west of you; if it blows from the east, the heaviest rain is south. The wind never blows, even moderately, unless rain or snow is falling within a radius of 1,000 miles. Whenever heavy white frost occurs, a storm is forming within 1,000 miles north or northwest of you.

LICORICE IN TURKEY

ONE of the chief exports from the Smyrna district is licorice, either in the form of root or paste. The word, which seems to be a corruption of the Greek glykyrrhiza, means "sweet root," and so it is commonly called in the Orient.

The United States is probably the best buyer of this product, taking from the entire near and middle East, according to the best informed sources, between 40,000 and 50,000 tons in good years. The declared export returns to this office show that over 15,000 tons of licorice root and paste were shipped to the United States from Smyrna during 1910, representing a value of $573,746, but the depressed business conditions of 1911 were reflected in the licorice exportation to the United States, which decreased last year to $137,848. There is no doubt that a large surplus carried over from last year is now on hand in local warehouses, though it is impossible to secure any accurate information on this point.

Licorice belongs to the pea or vetch family, and grows wild, the plant commonly reaching a height of about four feet. It is the long, straight root which is of commercial value. No means have been adopted for cultivating the plant, which requires about three years to reach maturity, or for improving its condition.

The manipulation of the root is very simple. It is gathered into piles by the laborers and left to dry, then made into bales, in which form it is shipped. The Smyrna exporters also have a plant in the interior for making licorice paste. The Asiatic habitat of licorice is chiefly Syria, Mesopotamia, etc., and may be stated in broad terms to lie along the fortieth parallel of latitude or below it. Vast regions in the valleys of the Tigris and Euphrates are prolific in the plant, but are at present unexploited on account of lack of communication. The licorice root gathered in Syria is brought to Alexandretta by camels, from which port it is shipped.

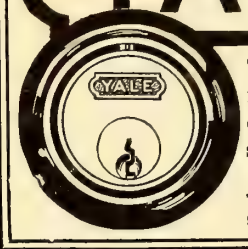
Licorice as a drug is used to disguise the taste of unpleasant medicines, as a coating for pills, and is also said to have a mild laxative action. In Egypt and India it is used in the manufacture of sherbet. In America licorice paste is used in enormous quantities to sweeten chewing tobacco, and it is also supposed to enter into the manufacture of various brands of chewing gum.

Imports of licorice root into the United States during the fiscal year ended June 30, 1912, are given in official statistics as 74,582,225 pounds of a value of $1,309,789, contrasted with 125,135,490 pounds, value $2,060,235, in the fiscal year 1911, and 82,207,496 pounds value $1,365,077, in 1910.

EDUCATION IN BELGIUM

ACCORDING to the Annuaire Statistique, compiled by the Minister of the Interior, the proportion of illiterates in Belgium in 1910, by provinces—not including children five years of age (22.37 per cent. and children less than eight years of age (19.12 per cent.)—was as follows: Luxemburg, 20 per cent.; Namur, 22 per cent.; Liege, 26 per cent.; Brabant, 30 per cent.; Antwerp and Limburg, 32 per cent.; Hainaut, 33 per cent.; East and West Flanders, 39 per cent. In Germany, where obligatory instruction has been in force for a number of years, there were in 1909 only two illiterates out of every 10,000 young men enrolled in the army, while in Belgium in 1910 the proportion was 798 per 10,000 enlistments.

YALE



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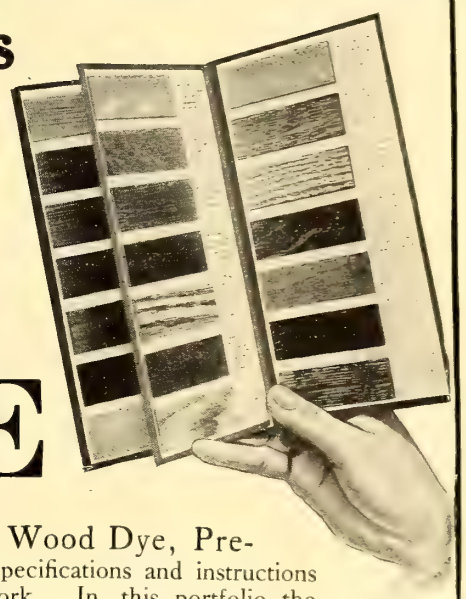

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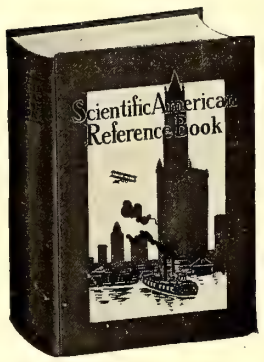

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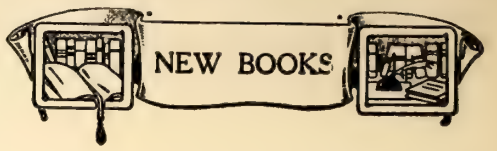

THE PARTY BOOK. By Winnifred Fales and Mary H. Northend. With numerous illustrations from photographs. Crown 8vo. Decorated cloth. $2.00 net.

Some of the valuable information contained in this volume is of course scattered through various books on entertaining and allied subjects, but a book especially devoted to party-giving in which the hostess is shown how to adapt and apply general principles to specific conditions and occasions has been much needed. The authors of the work have obtained intimate knowledge of the subject in the preparation and illustrations of articles contributed to important magazines, and every hostess will find the book very helpful. The volume is divided into four parts, the first being devoted to luncheons and dinners, and containing chapters on the invitations, setting the table correctly, and formal and informal menus. Part II, devoted to table decorations, contains chapters on color schemes and centerpieces, Jack Horner pies, candle shades, place-cards, nut and bonbon holders, decorated tables for special holidays, including national holidays, Valentine's Day and St. Patrick's Day, weddings and wedding anniversaries, bridal showers, engagements and debutante luncheons, etc. Useful information regarding refreshments for evening parties will be found in the third part, including chapters on new ways of serving ice cream, beverages hot and cold, and cakes, salads and sandwiches. Part IV gives information as to what to do for entertainment, including guessing contests, games new and old, etc.

THE SON OF COLUMBUS. By Molly Elliot Seawell. New York: Harper & Brothers. 1912. Cloth, 8vo. 236 pp. Price, $1.25.

This is a vivid, picturesque tale of the Spanish court in the days of Columbus. Through the boyish enthusiasm of two youths, one of them the son of Columbus, the author conveys a lively impression of the stir and bustle, the excitement and anxiety preceding the great adventure of Columbus, and the dramatic scenes attending his triumphant return. This is an admirable story book to put into the hands of any boy or girl.

JOSEPH PENNELL'S PICTURES OF THE PANAMA CANAL. Philadelphia and London: J. B. Lippincott Company: 1912. Cloth, 8vo. Full page illustrations. Price, $1.25 net.

These pictures of the Panama Canal (there are twenty-eight of them), by America's greatest living illustrator are reproductions of a series of photographs made by Joseph Pennell on the Isthmus of Panama from January to March, 1912, and the impressions and notes which accompany them are also by Mr. Pennell, who calls the achievement of the canal construction "the Apotheosis of the Wonder of work." He goes on to say "from my point of view it is the most wonderful thing in the world; and I have tried to express this." That he has succeeded remarkably well in doing so is not a surprise to those conversant with the artist's extraordinary ability as one fortunate enough to possess the present book will discover.

HARPER'S GUIDE TO WILD FLOWERS. By Mrs. Caroline A. Creevey. New York: Harper & Brothers: 1912. Cloth. 8vo. Illustrated. 555 pp. Price, $1.75 net.

This excellent volume explains the easiest way of identifying wild flowers and plants by a reliable system of classification. As a guide to the flowering plants growing wild in New England, the Atlantic seaboard, the Middle States and, to a lesser extent in the Southern States, Mrs. Creevey's book can be recommended as reliable, handy, and entertaining. The full page drawings are carefully executed and are generously supplied throughout the pages.

ROYAL GARDENS. By Cyril Ward. New York and London: Longmans, Green & Co. 1912. Cloth. Large 8vo. Illustrated in color. 182 pp. Price, $5 net.

"Good taste and a feeling for color helps one to make a garden an entirely suitable setting for the house; and a sense of proportion and fitness will come to his aid in designing all details. Paths for convenience in working, and ease in visiting the various parts of the garden, will, as it were, suggest themselves. And garden accessories, for convenience, for appearance and for interest, will be designed with such wise and careful taste, that they will appear thoroughly at home in the places chosen for them, and will increase not only the usefulness and comfort, but will add, also, to the beauty of the garden," so writes Mr. Ward in the concluding chapter of his delightful and handsome volume on "Royal Gardens." The chapters of this book are so arranged that the exquisite plates accompanying it present a full garden year from daffodils at Windsor Castle and Spring flowering shrubs at Bagshot Park to chrysanthemums at Claremont and Autumn flowers at Sandringham; and the gardens herein depicted include, in one or other, examples of the whole art of garden design as practiced in Great Britain during the last three or four centuries. That they are cultivated to-day with a hearty acceptance of every step in progress made in the science of horticulture should be a matter of interest to every garden lover inasmuch as it indicates that an old established garden needs just as much care to keep it to perfection as does a newer one. There is not an uninteresting page in Mr. Ward's beautiful book.

VAGABOND JOURNEYS. By Percival Pollard. New York: The Neale Publishing Company: 1911. Cloth, 8vo. 328 pp. Price, $2 net.

All who have read Percival Pollard's book of criticism published a year ago, "Their Day in Court: The Case of American Letters and its Causes," which was reviewed by AMERICAN HOMES AND GARDENS some months ago, will eagerly seek this volume, which does not pander so much to the needs of travelers as to their sense of humor. The book does not profess to inform. It does not direct us how to get there; what luggage to take; nor instruct us as to what *must* be seen, what avoided. All such general orders, the author wrote, surely affect only those that admit themselves without identity of their own—the members of the rabble. This book is addressed to individuals. It is the whimsical record of an individual's adventures along the primrose path of entertainment. The book's range of comparisons, between Berlin and Boston, London and New York, Paris and Washington, will give the student of our central modern civilization plenty of food for thought.

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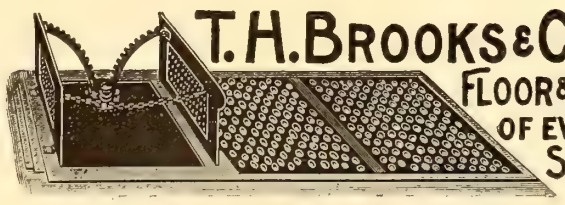
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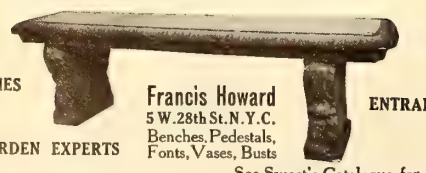

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A BEGINNER'S STAR-BOOK. An Easy Guide to the stars and to the astronomical uses of the Opera-glass, the field-glass and the telescope. By Kelvin McKready, G. P. Putnam's Sons: New York and London, 1912. Cloth, 8mo. VII, 148 pages. 70 Illustrations. Price, $2.50 net.

The numerous opportunities furnished by the astronomies of to-day to study the face of the nocturnal sky are materially augmented by the entrance of the Beginner's Star-Book into the field. The author, Kelvin McKready, has made it an easy guide to the planets and the stars and has clearly shown the uses of observation instruments. In the matter of illustrations, most of the photographs have been taken at the Mt. Wilson, Lowell, Yerkes and Lick Observatories and the glorious display they afford of nebulæ, moon surfaces, clusters, comets, discs, coronas and spots attests the efficiency of the means of their reproduction and the excellence of the printers' work. Part of the book is devoted to opera and field-glasses, binoculars and mounted small telescopes and their uses. Besides being a volume for the beginner, the author has made it an aid to the general reader and a use in connection with any of our modern treatises on astronomy. It is intended also for the service of those who wish to add to their knowledge without optical assistance. Those who need tables and maps will find the explanations laid down in clear, sober and popular treatment while the great amount of accurate work done in presenting the many data of the night charts and their key maps for any year, and the observer's catalogue, puts the brand of value on a vast body of stellar and solar information and illustration. The book also proves that it is difficult to secure a glass without a blemish, for the author in grinding his excellent crystal, leaves in a bubble that holds too many selections from poetry.

BY-PATHS IN COLLECTING. By Virginia Robie. New York: The Century Company: 1912. Cloth. 8vo. 350 pages. Price, $2.40 net.

Every enthusiast over rare and unique things which have passed the century mark will want this book with its wealth of reliable information on the age, decoration, value, etc., of old china, furniture, pewter, copper, brass, samplers, sun-dials, etc. And the general reader, not yet an enthusiast, will find very readable and enthusiasm-firing this chatty narration of Staffordshire highways and byways, of the many fascinating things to be found in neglected corners, of the great pottery and furniture-designers and their work, of collecting in all its phases. The book is not only a reliable working hand-book for both the amateur and experienced collector; it is also good reading for one who would have an intelligent appreciation of and joy in the value and sentiment of "old things."

AMERICAN GRAPHIC ART. By F. Weitenkampf. New York: Henry Holt & Co., 1912. Cloth. 8vo. Gilt top. Illustrated. 372 pages. Price, $2.75 net.

The history of American painting and sculpture has been written more than once in recent years. That of the reproductive graphic arts (etching, engraving on wood and metal, lithography) and their application to such specialties as illustration, bookplates, posters, remained to be told. In "American Graphic Art" this whole field is reviewed in a comprehensive though summary manner by its author, Mr. F. Weitenkampf, who is a well-known authority on the subject of the graphic arts. The accom-

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plishment of individual artists is considered primarily in its relation to general movements; the domain of the biographical dictionary is not invaded. Such a connected account of achievement in a wide range of possibilities carries us from the earliest products of these arts, with a predominant historical interest, to the most recent efforts at original expression, as we find it in the use of etching, wood-engraving, and lithography as painter arts. The appeal on both antiquarian and aesthetic grounds is therefore evident.

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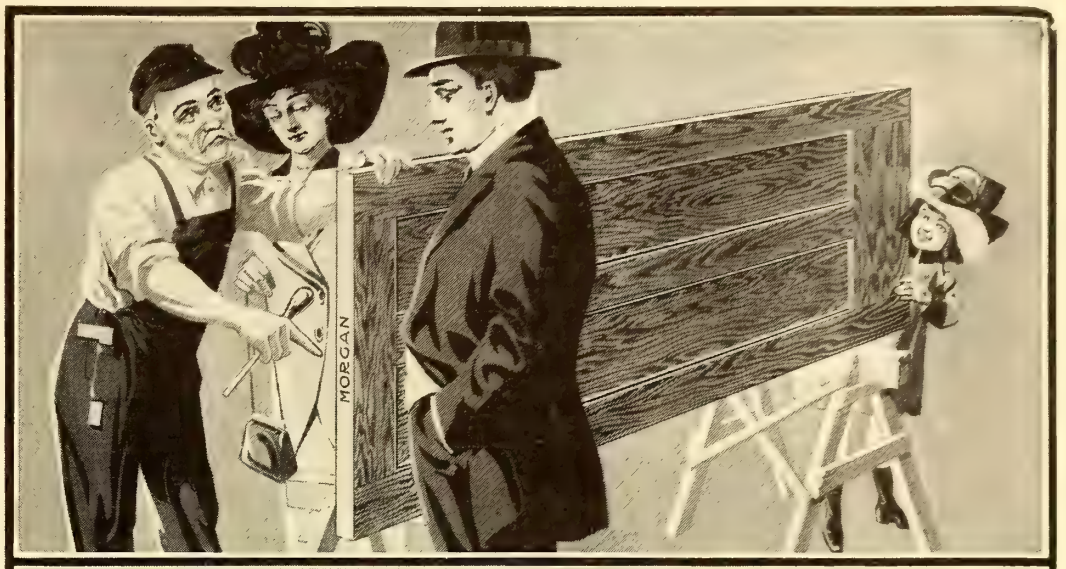

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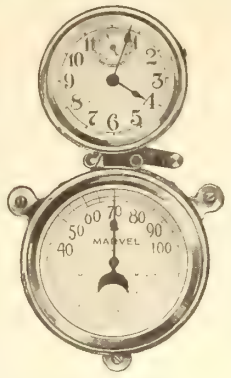

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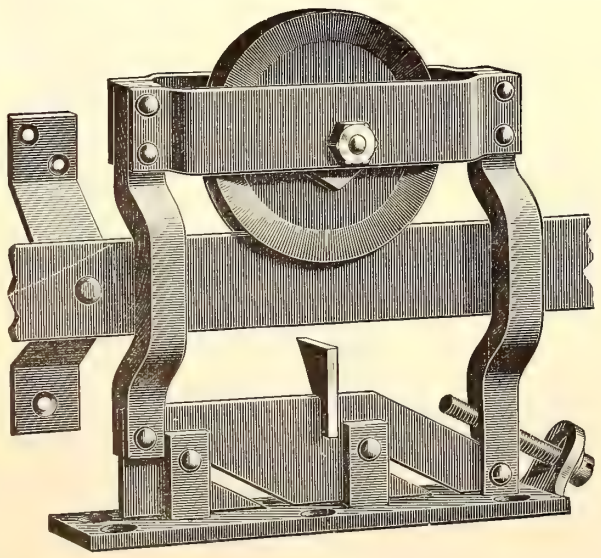

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AT the Cities' Exposition held recently in Duesseldorf, Germany, the perils of street traffic were illustrated in a convincing manner by means of kinematographic pictures made by the Düsseldorf Street Railway Company. Everybody knows that it is dangerous to board or to alight from a moving car. Statistics show that nearly fifty per cent of all street railway casualties are due to this foolish practice. One film showed a woman alighting from a slowly-moving car in the usual careless manner and coming to grief in consequence. In contrast was exhibited a film bearing the device, "The Left Hand on the Left Handle" and showing a woman alighting properly and safely. A third film illustrates the danger which a person walking, driving or cycling behind a car incurs by shifting to the other track without assuring himself that his new course is clear. The film shows a bicyclist turning to the left from behind a car and colliding with an automobile moving in the opposite direction. Another film illustrates the notorious bad habit of truckmen and hackmen, who persist in obstructing the tracks in defiance of the warning gongs and whistles of overtaking trolley cars. This obstructive policy of drivers should be combated by energetic measures. It is intolerable and absurd that thousands of persons should be delayed daily in this age of haste by the selfish obstinacy of a few drivers. The time-saving and other advantages of the new type of street car, in which the exit is separate from the entrance, are also shown by comparative kinematographic studies.

SEAWEED FOR TRIMMING HATS

ACCORDING to a recent number of the *Daily Consular and Trade Reports* a rather unusual industry along the Kentish Coast has come to public attention through a complaint lodged with the Kent Fisheries Committee. The inhabitants of the Isle of Grain and the adjoining districts on the east coast of Kent, have for many years been collecting a white seaweed that is washed up along the shore, which seaweed has been used by London and provincial milliners as a trimming for women's hats. This, it seems, has grown into a profitable industry during the Winter months, when farm work is not to be had. Its continuance is threatened by the practice of trawlers who attach barbed wire to their trawls and gather the white seaweed before it is ripe, selling the algæ thus collected at a very low figure. In the ordinary way, the seaweed falls off from the roots and is washed ashore, but the trawls pull it up by the roots and thus destroy the source of supply, besides leaving nothing for the islanders to collect but the refuse that has been thrown back into the sea by the trawlers.

SLEEPING COMPASSES IN JAPAN

IN Japan, says *Harper's Weekly*, no native ever sleeps with his head to the north, for the reason that the dead there are always interred with their heads in that direction. One result of this custom is that in the sleeping-rooms of many of the private houses of Japan, to say nothing of the hotels in the cities, there is conspicuously posted on the ceiling, for the information of guests, a diagram of the points of the compass.

AMERICAN HOMES AND GARDENS

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